Amateur Radio

March 1998
Volume 66 No 3

Journal of the Wireless Institute of Australia

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Pierce Healy VK2APQ at the operating position of his magnificent amateur radio station. Pierce is an Old Timer of the VK2 Division of the WIA, a Life Member, and a past President and Federal Councillor of many years. Pierce operates HF and VHF and is still going strong in his mid-eighties.

[Photo from Neil Penfold VK6NE]

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■ Comment

Editor's Comment

Celebrating Birthdays

A news item from the Radio Society of Great Britain included in last month's *Amateur Radio* magazine stated this year marks the centenary of our hobby.

There are many names late last century credited with furthering mankind's knowledge of wireless including Heinrich Hertz, J C Maxwell, Joseph Henry, Guglielmo Marconi, and Sir Oliver Lodge.

This is not an exhaustive list and there are other names that deserve to be in any "who's who of wireless" – which is not the intention of the editorial.

However, what is very interesting about the RSGB news item is it announces that an historical reference identifies a Lieutenant M C J Dennis of Woolwich, London, as the first non-professional wireless communicator in 1898. He reportedly made the claim of being the "world's first", a proclamation that was not challenged – in Britain at least.

It would be very interesting to learn more about the "historical reference" referred to in the article, and Lt M C J Dennis himself.

In the mid-1980s the origins of our hobby were described in a WIA submission to a government inquiry as being an oddity of science around the turn of the century.

Reflecting on that statement, which has been repeated or adapted in various other writings ever since, it was clear at that time we did not know exactly when amateur radio began in Australia.

The publication *WIA Book, Volume 1* does include a chronological table which was mostly the work of Max Hull VK3ZS (SK) a long time WIA Federal Historian and Federal President.

It includes a reference to G W Selby of Malvern, Victoria, having corresponded with Sir Oliver Lodge in 1896. Lodge had two years earlier lectured and demonstrated electromagnetic force, and named a device that enabled the reading of wireless telegraphy signals.

Selby featured in an historical article in *Amateur Radio* magazine which gave him status as our first amateur wireless

Continued on page 55

CONTRIBUTIONS TO *AMATEUR RADIO*

Amateur Radio is a forum for WIA members' amateur radio technical experiments, experiences, opinions and news. Manuscripts with drawings and/or photos are always welcome and will be considered for possible publication. Articles on computer disk or via e-mail are especially welcome. The WIA cannot assume responsibility for loss or damage to any material. A pamphlet, *"How to Write for Amateur Radio"*, is available from vk3br Communications Pty Ltd on receipt of a stamped, self addressed envelope.

■ News

WIA News

Roger Harrison VK2ZRH,
Federal Media Liaison Officer

The Outlook for Amateur Radio – Views Sought

The International Amateur Radio Union (IARU) Administrative Council (AC) has established a committee to look into concerns about the impact of changing technology and the Internet on amateur radio and the possibilities for future growth and development of the hobby.

Established following the September 1997 IARU Administrative Council meeting in Beijing, held after the conclusion of the Region 3 Conference there, IARU President Dick Baldwin W1RU appointed the "Amateur Radio Outlook Committee", with Tom Atkins VE3CDM, President of IARU Region 2, as chairman. Region 3 Director Yoshiji Sekido JJ1OEY and Lou van de Nadort PA0LOU, Region 1 Chairman, were also appointed as committee members.

The Outlook Committee has a distinctly different role to the "Future of the Amateur Service Committee," (FASC), appointed in early 1996, dealing with the possible future amendment of Article S25 of the ITU Radio Regulations, which defines the Amateur Service. In addition to the Outlook Committee, last September the AC also appointed a "Constitutional Review Committee" to study the IARU's structure and finances.

Growth of the Internet and Implications for Amateur Radio

This was prepared by the IARU International Secretariat as an input document for the IARU Administrative Council Meeting in Beijing, September 1997. It is a discussion document only, and is not a statement of IARU policy.

Background. Over the last several years the loosely organised collection of computer networks collectively known as the "Internet" has grown at an amazing rate which few would have predicted. From rather simple beginnings as a way for certain US government research facilities and Universities to exchange data in order to facilitate and stimulate their creative work, the Internet has now reached into businesses, homes, industries and government offices in literally every corner of the world.

Radio amateurs, by the very nature of their interest in communications and in technology itself, have become, as a group, intense users of the Internet. As we plan for amateur radio in the 21st Century, we must consider the implications of the Internet.

Recruitment of youth into amateur radio. Historically, young people interested in science and technology found the excitement of building and operating short-wave radios to be an inducement to learn the fundamentals of radiocommunication in order to become licensed by their Administration to operate a station in the Amateur Service.

Today, such persons need only have Internet access through a computer in their home or school to have the ability to communicate with people of like interest anywhere in the world.

Technological innovation and experimentation. Historically, the transition from spark to CW, from Morse to telephony, from AM to SSB were all pioneered and popularised by radio amateurs. Today, most radio amateur systems use technology that has progressed little in recent years. Moreover, the Internet is in the early stages of providing digital voice person-to-person communication at little or no cost beyond the initial investment in hardware and software.

Therefore, the Internet can be seen as challenging Amateur Radio on three fronts simultaneously: there is no licensing requirement, it offers an opportunity to have quick, reliable world-wide communication, and it provides an opportunity to use state-of-the-art technology.

The Future.

(1) *Spectrum requirement for the Internet.* Yes, the Internet is not only a wire-line system. Those who believe that Internet (the Global Information Infrastructure or GII) must become truly universal during the 21st Century know that a combination of wire and wireless systems will be required. Within the ITU and the professional telecommunication industry, historic distinctions between wire/wireless are disappearing. Therefore, Internet already has articulated spectrum requirements of two kinds. First, some Mobile Satellite Systems (MSS) – Teledesic, SkyBridge, and Celestri – are designed for digital wide-band high data rate communication. Secondly, fixed-wireless-access (FWA) systems are seeking allocations for "radio LANs" and similar office systems. These systems have greatly increased the pressure on spectrum above 2 GHz.

(2) *The ITU and the Internet.* While the ITU was not an early adopter nor advocate of the Internet, in the last three years the ITU has decided to attempt to become a major force in the world of Internet. In part, this was a defensive move because ITU data communication standards were running the risk of being seen by the world of users as irrelevant.

This new commitment by ITU has taken three forms: ITU is attempting to become the Top-Level-Domain Registrar and to establish a system of competitive registrars while introducing new domains. For example, ITU itself has changed from being "*@itu.ch*" to "*itu.int*" where int is a newly created domain name for an international organisation.

ITU is now sponsoring conferences related to Internet such as Interactive TELECOM in Geneva. These conferences are designed to produce revenue while at the same time reinforcing the idea that ITU is a centre for Internet information.

ITU is making extensive usage of the Internet in the conduct of the business of ITU, including selling products over their web pages, electronically distributing documents related to meetings and conferences, and accepting submissions of input documents through the Internet.

The implications for amateur radio are serious. As more and more individuals come to have access to world-wide communication through the Internet, the unique nature of the Amateur Service will diminish. As entities become reliant on Internet communication they are more likely to be convinced that universal service access is a necessary objective. As the boundaries between wired/wireless become meaningless from both a technical and a regulatory standpoint, the pressure on microwave spectrum is likely to increase dramatically.

Appointment of the Outlook Committee resulted from discussion at the AC meeting of a paper prepared at the Council's request by the International Secretariat, which is reproduced here. (Or see *http://www.iaru.org*).

The Outlook Committee's brief is: *To review the current and future state of the art in the Amateur and Amateur-Satellite Services in the light of changing technology and the Internet; to focus on technology, techniques and future developments; and to make general recommendations as to the future growth and development of amateur radio.*

The committee has a deadline of 30 June 1998 to report, and is seeking comment from IARU member societies and individual amateurs. The WIA is collecting and collating comments from WIA members and the Australian amateur community. Comments can be forwarded, by 1 May 1998, to "Amateur Radio Outlook Comments", WIA Federal Secretariat, PO Box 2175, Caulfield Junction VIC 3161, or via e-mail to *rogerh@apogeegroup.com.au*.

If you intend sending a comment direct to the IARU Outlook Committee, the WIA would appreciate a copy to one of the above addresses.

[Released 5/2/98]

UK Amateurs Get New Band

The Radio Society of Great Britain's *GB2RS News* reports that the UK Radiocommunications Agency announced on 30 January a variation to the Amateur Radio Licence to include the 136 kHz band, foreshadowed late last year (see *WIA News*, January 1998, p 9 *Amateur Radio* magazine).

All full UK Class A licensees are permitted to run one watt effective radiated power (ERP) between 135.7 kHz and 137.8 kHz. Permitted modes are Morse, telephony, RTTY, data, facsimile and slow-scan television.

With a total bandwidth of only 2.1 kHz, the use of most of these modes will require some technical ingenuity, the RSGB said.

Class A amateurs in the UK have had access to 73 kHz for the past year, but had to apply for a special permit to operate there. Special permits are not required for 136 kHz. The allocation at 73 kHz will continue to be available to permit holders until June 2000.

A number of UK LF enthusiasts wasted no time in making use of the new band, which has been available to amateurs in a number of European countries for some time.

The RSGB's *GB2RS News* reports that Peter Dodd G3LDO made several cross-band QSOs on 30 and 31 January, the first with John Moore G4GVC. On 1 February, G3LDO worked G3GRO for what is probably the first two-way UK contact on the new band. Signals from Germany were also heard in the UK on 136 kHz, while G3LDO was heard by DL2KCL, but two-way contact was not made. The first two-way Swiss contact on 136 kHz was also reported in February.

[Released 5/2/98]

New Claim for 24 GHz Distance Record

Microwave pioneers Wally Howse VK6KZ and Neil Sandford VK6BHT have made a claim for a new distance record of 143 km for the 24 GHz band, extending their previous record by more than 20 km.

On 10 January 1998, VK6BHT operated portable at Separation Point, near Geraldton, while VK6KZ operated portable at Point Louise, near Green Head, north of Perth. The SSB contact, a sea path for the entire distance, was achieved under conditions not ideal for 24 GHz, with the temperature and humidity at each end of the path being 22 degrees Celsius and 98%, according to Wally VK6KZ.

Reports of 3/1, with severe QSB, each way were exchanged along with serial numbers for the Ross Hull/Field Day contests. Signals on 10 GHz were reported as solid.

A signal on 24 GHz from VK6BHT/p was initially heard at 1124 UTC (1924 WAST, just after local sunset) and the contact was completed between 1310 and 1323. A later attempt over a 172 km path was not successful.

Both stations were using about 20 mW to 570 mm diameter dishes.

The previous record, established by the same two operators, is 120.6 km, set on 19 July 1997.

[Released 25/1/98]

Price is Right for the Last Fluke Prize

The lucky last winner in the 1997 new recruit draw for the Fluke 12B digital multimeter was **Mr R Price L21067**, of Potts Point, who joined the NSW Division of the WIA. This means NSW Division recruits decidedly scooped the pool in collecting prizes for the 1997 membership recruitment promotion, with a total of five new members winning the draw.

The last draw was made by Henk van Velze (right), Marketing Specialist with **Philips Test & Measurement**, who generously agreed to support the 1997 WIA recruitment promotion initiated by Roger Harrison VK2ZRH in late 1996. Philips provided 12 Fluke 12B digital multimeters for prizes, worth a total of $2340. **ar**

AX*ITU Call Signs Sought for 1998 World Telecommunication Day

The WIA's ACA Liaison Team has applied to the Australian Communications Authority for the use by Divisions of the series AX*ITU special event call signs again, for use during World Telecommunication Day on 17 May.

Each year, on this date, the founding of the International Telecommunication Union (ITU) in Paris in 1865 is commemorated. Each year the event has a "theme". In 1997, it was "Telecommunication and Humanitarian Assistance," and in 1996, "Telecommunication and Sport."

The amateur radio fraternity around the world joins in by operating special event stations. In Australia, the WIA Divisions have encouraged the operation of special event stations by seeking permission for these stations to use AX1ITU, AX2ITU, etc. The chief advocate for many years has been the NSW Division's Special Projects Officer, Stephen Pall VK2PS (*Amateur Radio's* "How's DX?" columnist).

World Telecommunication Day special event stations signing the AX*ITU call sign have been a long standing tradition in Australia. However, there was a 'hiccup' in 1996 about use of the call signs on 17 May that year, following a 1995 change to the rules about permission for special call signs. Previous licensing administrations had permitted use of the call signs without the need for special annual applications by Divisions who wanted to sponsor the operation of a special event station on World Telecommunication Day.

After WIA representations, the then-SMA granted use of the AX*ITU call signs in 1997. However, the ACA's rules require an application for each event for which special call signs are sought, hence the ACA Liaison team's application, which will hopefully be successful.

[Released 5/2/98]

'Intruders' on 40 m May Not Be!

Some non-amateur signals which may be heard on the bottom end of 40 m, below 7050 kHz, are legitimate transmissions, according to the South African Amateur Radio League (SARL), via VK4 Intruder Watch Co-ordinator, Tom Walker VK4BTW.

Apparently, 7000-7050 kHz is allocated to commercial users on a primary basis, and not to the Amateur Service, in Angola, Egypt, Ethiopia, Guinea, Iraq, Kenya, Libya, Madagascar, Malawi, Rwanda, Somalia, Tanzania and Togo.

According to Chris Turner ZS6GM of the SARL, the ITU regulations permit transmissions by commercials in these countries and are thus not intruders but, when heard, must be treated with respect and interference avoided. ***[Released 5/2/98]***

■ Transmitting

Sidetone for the "TCF" Transceiver

Bob Kemp VK3CAY
31 Maidstone Street
Altona VIC 3108

I constructed the "TCF" SSB/CW Tx/Rx for 80 m, as designed by Drew Diamond VK3XU and featured in *Amateur Radio*, October 1993. It has given good service over the past few years on both modes.

However, when working CW, the lack of sidetone is a great disadvantage. To overcome this, it has meant running another receiver to provide the required sidetone. Another alternative was to send the CW by computer and read what was actually being transmitted from the PC monitor.

Well, I was always going to modify the set and include sidetone, perhaps using an IC such as the 555 timer; however, Dr T C Choy's design in the April 1997 issue of *Amateur Radio* provided the solution. I incorporated some of the circuitry used by VK3CCA.

Most of the additional circuitry (see Fig 1) was assembled on a small piece of matrix band 50 mm x 50 mm, which was a bit tight for room. Apart from wiring this small additional board, there are only a few small changes required to the existing unit.

At first the sidetone oscillator was reluctant to oscillate and this turned out to be because the bench power supply had a low impedance to AC which would not allow the multi-vibrator to start. Only two ICs were tried, but the results were similar. A 100 ohm resistor was added in series with the supply and all was well once again. I suspect this configuration relies on some feedback from the supply rail.

The circuit is almost identical to Dr Choy's design (refer to Fig 2 on page 17 of *Amateur Radio*, April 1997) with the exception of the keying transistor type and configuration. A small general purpose NPN transistor, a 2SC1815, was used in lieu of the TP110 because I had one to hand.

The collector is taken to the 22 k resistor used in Drew's design, after removing the existing wire going to the key socket, and the emitter is taken to earth. The 0.33 µF capacitor wasn't fitted to the base mainly because of lack of space.

On the existing LM386 audio amp, two 10 k resistors were added to the input to provide some isolation, and a general purpose power diode was added, together with another 100 µF 16 V electrolytic capacitor, so that the LM386 had a supply when receiving and also when transmitting CW. A fringe benefit is that you can use the sidetone as a practice oscillator when in CW/Receive, just like the commercial rigs.

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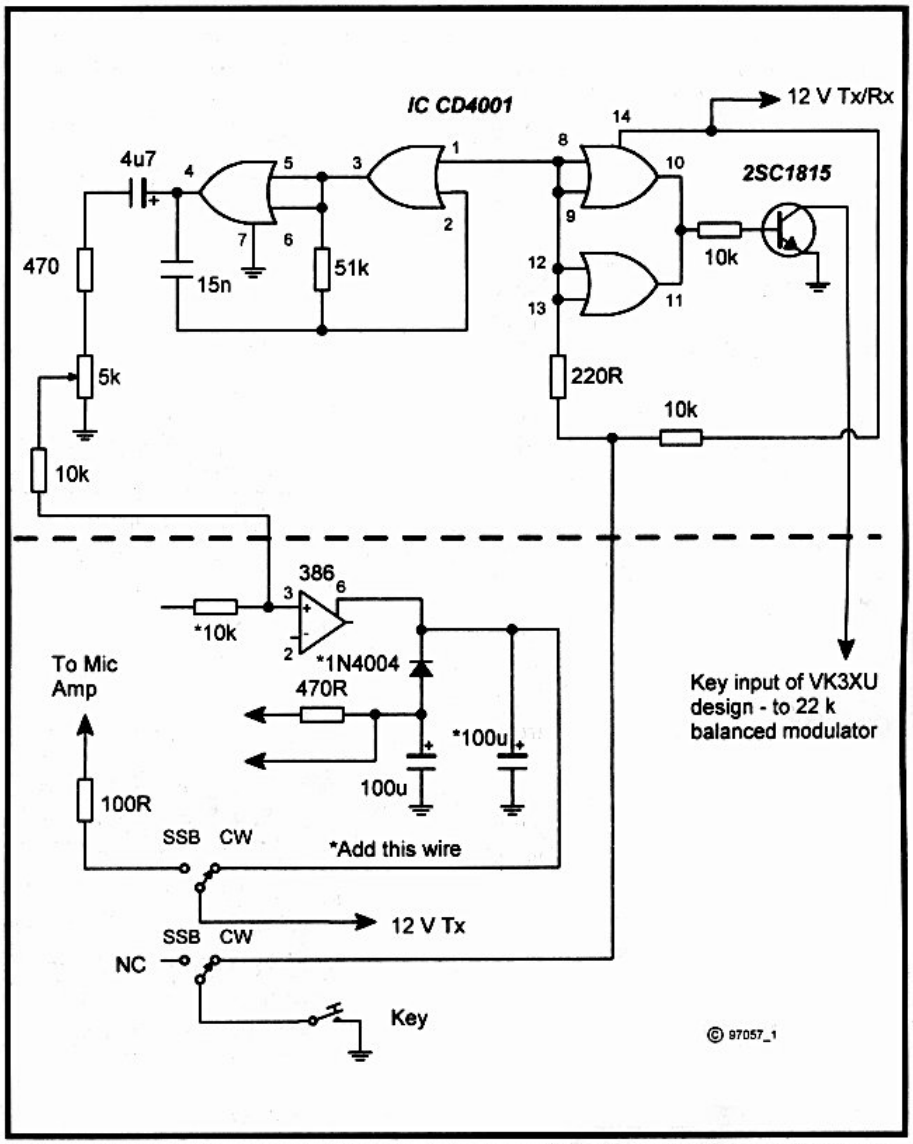

Fig 1 – Schematic of the sidetone oscillator for the TCF transceiver. The circuitry below the dotted line is part of Drew Diamond's TCF design, featured in *Amateur Radio*, October 1993. The additional components are denoted with *.

■ Receivers

An SSB Product Detector for "Boat Anchor" Receivers

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Despite advances in modern communications technology, and perhaps because of them, there is still a great deal of enthusiasm in some parts of the amateur community for older style vacuum tube gear. There are many pieces of equipment still around that were "state of the art" in their day and which are capable of performing as well as, or better, than some modern solid state rigs. Because they use vacuum tubes and have heavy power transformers on solidly built chassis, these sets are affectionately known as "boat anchors".

Many older receivers were produced before SSB became popular and universal. While a vacuum tube receiver 50 or more years old may have excellent stability, selectivity and sensitivity even by modern standards, the diode detector/low level BFO combination which was common before the 1960s is not well suited to SSB reception and usually results in distorted and noisy demodulation requiring much fiddling with the RF gain control for a barely satisfactory result.

This project was prompted by the addition of a Racal RA17 receiver to my shack. This 1950's classic was a beautiful and very sophisticated design in its time; however, its performance on SSB is particularly unsatisfactory. Racal made an SSB adapter, but they are not easy to find. While this project was built especially for the RA17, I have used similar designs for other boat anchors and the adapter can be easily modified for most sets.

The RA17, in common with most professional receivers, has an IF output socket which brings out the 100 kHz IF signal, after the selectivity filters and IF amplifiers, especially for such an adapter. As there is no BFO output socket, I originally chose to generate an independent BFO. Once the adapter was built it became apparent that there were great advantages in bringing out the BFO signal (see below).

Circuit

Referring to the circuit, the BFO transistor Q1 is a Colpitts oscillator which uses a ferrite pot core (from the junk box) tuned by a combination of capacitors and varactor diodes for pitch adjustment. Because of the relatively low oscillator frequency, four varactor diodes are needed to get an adequate frequency swing. The lower limit of the tuning voltage is limited to about 1.8 volts to keep the varactors reverse biased at all times. The textbook "back to back" varactor arrangement would have required 8 diodes.

Feedback is purposely kept low on the oscillator to allow it to be "pulled" easily (see below). The oscillator output is isolated by emitter follower Q2. This feeds the oscillator port of an MC1496 double balanced mixer through an attenuator pad to ensure a proper injection level of about 300 mV.

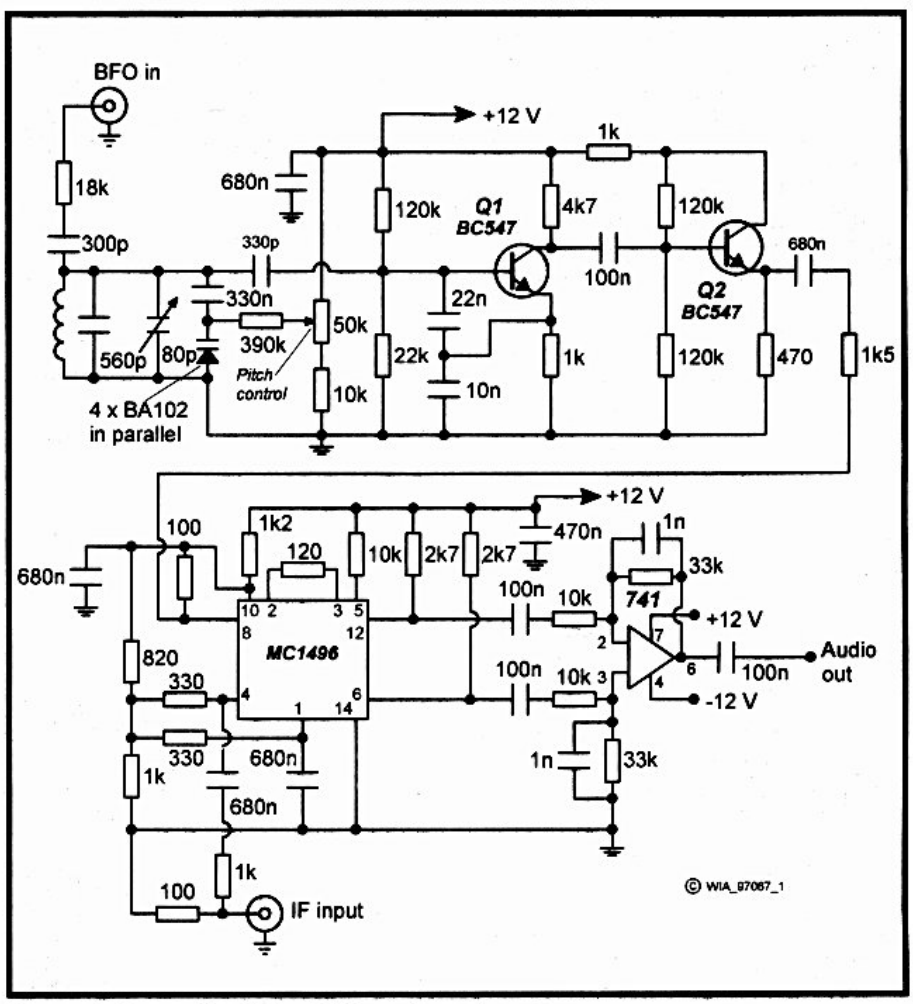

Fig 1 – Schematic of the SSB product detector.

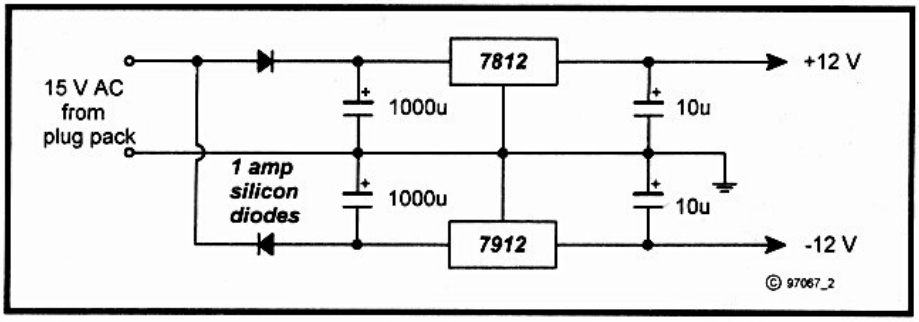

Fig 2 – Power supply for the SSB product detector.

The IF signal from the receiver is at a level of 200 mV and an impedance of 75 ohms. This is fed through an impedance matching pad with about 12 dB attenuation into the signal port. The differential mixer output drives an op-amp connected as a low gain low pass amplifier with a roll off at about 4.5 kHz. I used mine to feed an external amplifier so I did not include an audio output stage. Power comes from a 15 volt AC "plugpack" through a simple rectifier and a couple of three-terminal regulators. Power consumption is only a few milli-amps and there is enough power available for a one or two watt output chip if desired.

Modification to Receiver (optional)

One snag with this adapter is that it does not work properly on AM. Unless the BFO is in phase lock with the AM carrier, objectionable heterodyne effects occur. If the BFO is disabled, there is no output because the double balanced mixer isolates both inputs and the output only contains mixing products. A simple non-permanent modification to the receiver gets around this problem.

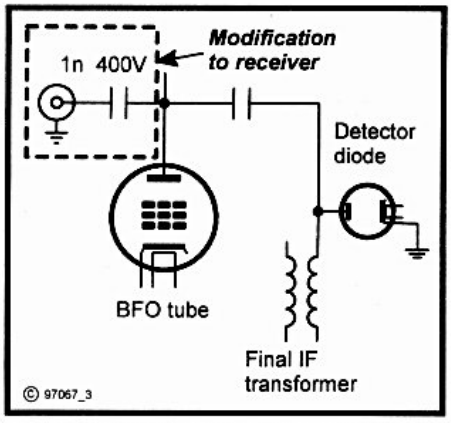

Fig 3 – Connecting the SSB product detector to the "boat anchor" receiver to use the receiver BFO.

In the RA17, as in many other receivers, the BFO is an "electron coupled" pentode which is controlled by switching the HT on and off. The plate of the oscillator valve is coupled to the detector diode through a small capacitor. This means that, when receiving AM with the BFO off, there will be a volt or two of the AM carrier on the BFO plate pin. When the BFO is on there will be several volts of BFO signal at the same point. If this signal is extracted from the receiver and connected to the oscillator of the adapter through a suitable isolating network, there are three very desirable results:

1. If the receiver BFO is on, it locks the adapter oscillator allowing pitch to be controlled at the receiver front panel and overcoming any drift in the adapter oscillator.

2. When the BFO is turned off, the AM carrier from the BFO plate in the receiver captures the adapter oscillator, allowing synchronous AM detection in the balanced modulator.

3. By unplugging the receiver BFO connection the adapter functions as an independent SSB detector with its own BFO and can be used with unmodified receivers.

I brought out the BFO plate point by the simple method of wrapping a piece of fine wire around the tube pin and passing it out through the top of the tube shield. This is connected in series with a 0.001 µf capacitor to a coaxial connector mounted on a scrap of aluminium angle secured to a nearby mounting screw (there are lots of them in the RA17!). The signal is coupled to the adapter oscillator tank through an R-C isolating network. Because the oscillator has loosely coupled feedback, it locks readily to the incoming signal.

I have designed a circuit board for the adapter using a CAD program and will be happy to send a copy to anyone sending me a SASE. The only exotic component is the oscillator coil which can be any RF inductor with a value of around 3.9 mH for 100 kHz operation, or 300 µH for 455 kHz. A disused transistor IF transformer of the appropriate frequency would be ideal. If you use a split core it is a good idea to put a drop of epoxy between the halves when you finally assemble it to avoid slight movements causing frequency shifts. The tuning range with the values given is a little over 3 kHz. The Colpitts divider capacitors should be reduced to about a quarter of their values for 455 kHz operation.

The difference in SSB reception when using the adapter is quite spectacular and converts this magnificent receiver into a useful workhorse in the shack. By adding the BFO modification to the receiver, the adapter functions "automatically" on AM as well.

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New WIA Members

The WIA bids a warm welcome to the following new members who were entered into the WIA Membership Register during the month of January:

L60394	MR R RIDLEY
VK6BFI	MR G FAZIO
VK6ER	MR D K JACKSON
VK6ET	MR R K JACKSON
VK6PFI	MR I F PEMBER
VK6XLR	MR R KOWALEWSKI

■ Propagation - Technical

A Geomagnetic Storm Detector

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Introduction

The average period of the solar cycle is eleven years, although the time between successive peaks can vary up to three or four years each way. We have passed through the trough between cycles 22 and 23. The last three years have provided an opportunity to observe some reasonably frequent geomagnetic activity, as the A index in IPS reports over the period have shown.

Although a trough is the sign of low sunspot activity, as demonstrated by the 10.7 cm flux values in IPS reports, it can also coincide with the peak of geomagnetic disturbances. This happened in 1975, near the end of cycle 20, when the sunspot number was only 25. The number of geomagnetically disturbed days was 98 (*Reference 1*).

This article cannot detail all the background information that relates to the sun and solar induced disturbances; interested readers are encouraged to obtain a copy of the IPS Radio and Space Services "User Training Manual". This explains the three indices:

1. **Ten Centimetre Solar Flux**, based on the sunspot number measured at the Ottawa Radio Observatory.

2. **Magnetic A Index**, which is involved in this article, and has the following values:

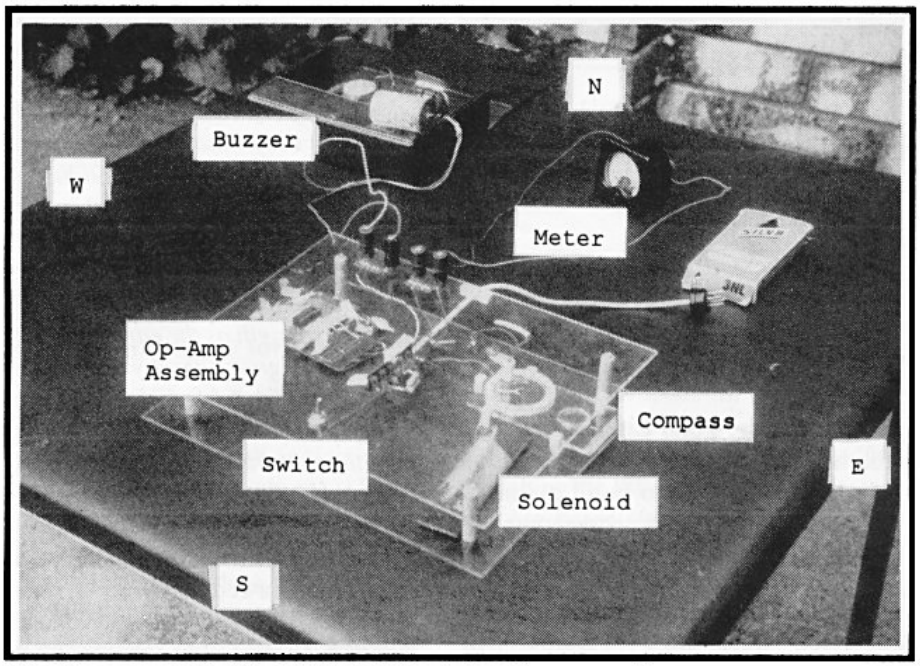
0 to 7	Quiet
8 to 15	Unsettled
16 to 24	Active
25 to 35	Minor Storm
36 and above	Major storms

3. **Ionospheric Index**, a measure of the average level of the ionospheric critical frequencies (radio propagation) on a given day.

When I read an article by the Swedish astronomer G Flodqvist in *Sky and Telescope*, October 1993, titled "Detecting the Polar Lights", I sought the help of fellow radio amateur, Jon Lindstadt VK2WF, to build a similar device. The physical arrangement of components is identical with the original. The electronic circuitry has been modified somewhat by VK2WF to provide an alarm instead of using the pen recorder; and to make the unit operate from a single supply (12 volts). Mr Flodqvist has kindly consented to my references to his article.

The best way to introduce the subject is to quote from his description of the unit. "*Ordinary compasses are the best known sensors for the earth's magnetic field. At the sensitivity of a compass this field is very stable. Ionospheric disturbances add subtle variations, and we need a magnetometer to detect them. Luckily, one can easily construct one from a compass by 'adding' an artificial magnetic field to it. The field should be the same strength as the earth's but be of opposite sign, thereby effectively cancelling the stable field. Any minor changes due to ionospheric conditions will then turn the compass needle noticeably.*"

The principle involves the use of a compass needle to interrupt a light beam from an infra-red LED to a photo-transistor (infra-red sensitive). The changed current through the photo-transistor is then amplified and displayed on a micro-amp meter. The output from the amplifier also controls the current through the solenoid, and therefore the artificial magnetic field. The polarity of



The Geomagnetic Storm Detector set up for operation.

this field opposes the movement of the compass needle. The whole circuit comprises a phase-locked loop.

Construction

Commence by preparing the two sheets of Perspex, drilling holes for the four wooden spacers (12 mm dowel), the LED (bottom sheet), the photo transistor (top sheet), the potentiometer (R1) shaft, the switch and the four output spring loaded terminals. The photo transistor must be placed directly above the LED and spaced no more than 40 mm from it. Once the position is established, four posts made from balsa wood are grooved to take the compass, and glued in position so that the south pointing needle will just enter the light beam path. A fifth post can then be glued to provide the stop position.

Four posts, grooved as before, must also be provided as slots to house the frame holding the solenoid, at right angles to the line of the compass and about 50 mm from the needle tip.

The solenoid is made from a large reed (or other suitable type) relay that has had the reed replaced by a soft iron rod as the core. The writer used a bolt of suitable diameter, with the nut cemented into one end of the coil former, so that later adjustments can be made. The relay is best mounted on a small section of circuit board, thus constituting the frame referred to in the previous paragraph.

The smaller components are mounted on a suitably sized circuit board, ensuring that the trimpots are situated at one end, handy for final adjustments. Some builders may prefer to position the board above the top plate if modifications are required. A test point could also be provided for measuring the voltage at pin 7 of the op-amp.

The meter should be placed at least 500 mm from other components to avoid its magnetic effects. The spring loaded terminals are provided for this purpose.

Alignment

After switching on, measure the output voltage at pin 7 test point - it should be close to 12 volts. Blocking the light from the LED should reduce the voltage close to zero. If successful, switch off, and place the compass between the LED and the phototransistor, such that only the south pointing needle tip (white) will interrupt the light beam when it is in the east west position, 90 degrees from magnetic north.

Align the instrument so the edge of the Perspex sheet marked "N" in the diagram faces magnetic north (red tip of needle). Slide the solenoid from its frame into the balsa wood mount, and switch on the power again. This will turn the needle.

Experiment with varying distances of the frame from the compass needle until the latter cuts the light beam and eventually locks at 90 degrees from magnetic north. If the alignment is not satisfactory, try reversing the polarity of the solenoid terminals. Refine the adjustment of the meter to its centre

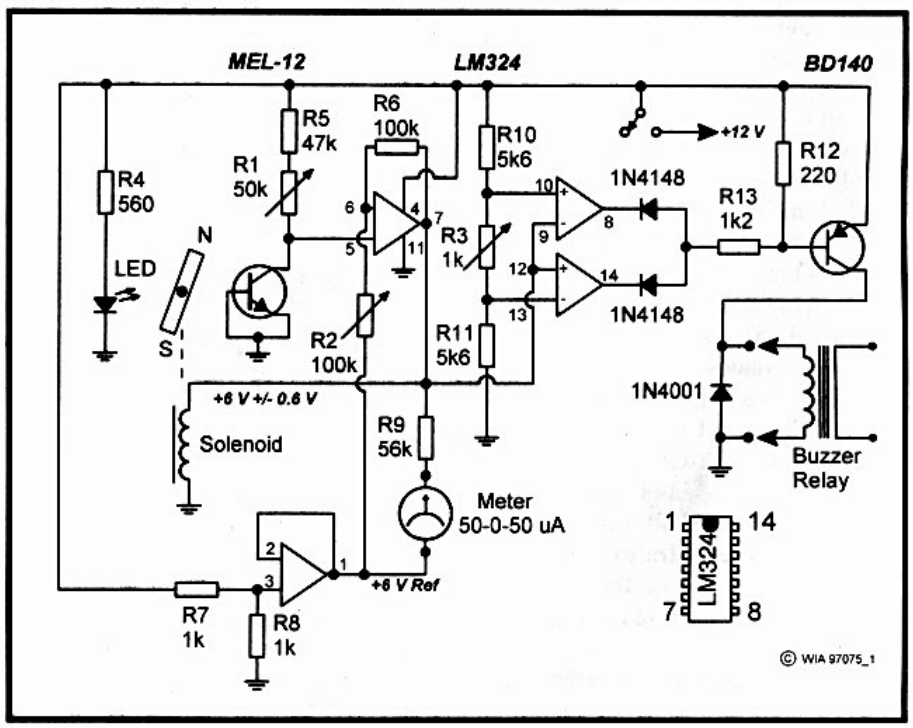


Fig 1 - Schematic of the Geomagnetic Storm Detector.

reading position, using the iron core in the solenoid and the trimpot R1. Use the trimpot R2 to adjust the gain of the amplifier, and the trimpot R3 to set the threshold of the buzzer relay.

Operation

The meter needle oscillates during a magnetic storm or similar disturbance. Sensitivity can be tested with magnets having various strengths. To maintain a consistent standard, the writer uses a small horse shoe magnet. When this is placed one metre from the compass region, it only just triggers an audible response. A large horse shoe magnet from an old car magneto at a distance of five metres will do likewise. Replacing the 50 micro-amp meter and its 56 k resistor with a pen recorder and matching resistor would provided more accuracy and detail.

Earth has a steady magnetic field of about 50000 nano-Tesla (0.5 gauss). At Australian mid latitudes the instrument is not sensitive to the normal small diurnal variations in the Earth's field, but is responsive to minor and major storm activity - as has been found over recent years by the writer.

A minor storm can increase or depress the earth's field by about 30 nT or so, a small percentage of the total field. Australian figures are released by IPS Radio and Space services from their source at the Learmonth observatory in Western Australia.

Magnetometers that have the needle in the horizontal plane are basically of three types:

1. **Deflection magnetometer**, when the angle of deflection produced by the external force is measured directly.

2. **Vibration magnetometer**, when the needle is given a small angular displacement from its equilibrium. The period of the oscillation can indicate the value of the applied field.

3. **Torsion magnetometer**, when a magnetic field is applied to act at right angles to the needle. It would appear that the torsion type applies in the Flodqvist choice.

The current drain of the instrument is 50 milli-amps so power can be taken from a 12 volt car battery. In my case, it is a small (sealed) gel battery as described in the parts list. A trickle charger supplying 60 mA has proved to be quite satisfactory. A separate small 9 volt battery (216) powers the buzzer.

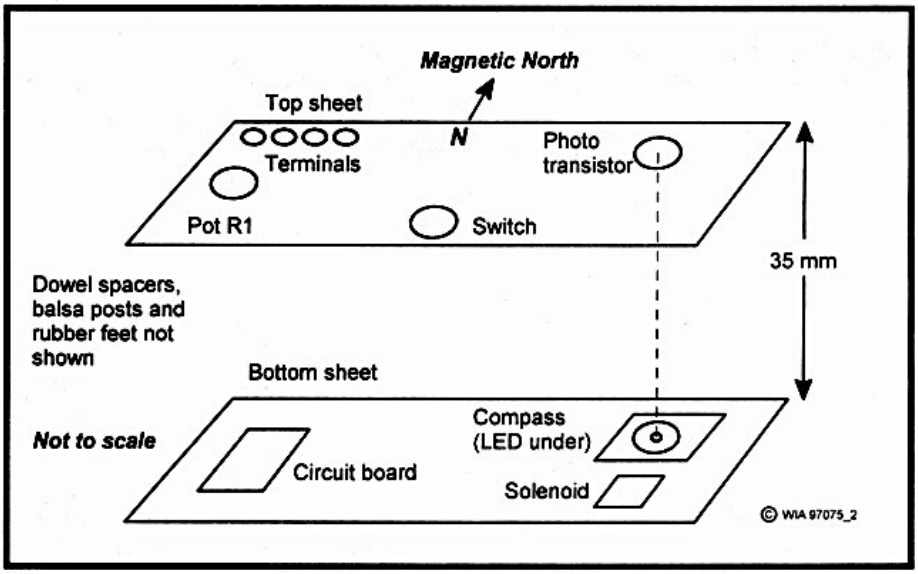


Fig 2 - General layout of components of the storm detector.

The instrument is housed in a sturdy cardboard box to protect it from sunlight. The box rests on a solid base, away from metallic objects and possible sources of vibration.

Australian observers may not have the opportunity to enjoy auroral sights like our Swedish counterparts, but they can still participate in detecting movements in geomagnetic activity and correlate this with radio propagation.

Parts List

1 Magnetic Compass type Silva 3NL (transparent housing)
1 Op-amp, LM324
1 Toggle switch SPDT (mini)
1 IR LED, CQY89a/LTE4208C
1 IR phototransistor, MEL-12
1 Transistor, BD140
1 Diode, 1N4001
2 Diodes, 1N4148
1 Mini relay 12V, normally open
1 Mini-buzzer, 6-9 V Inter Tan 273-054A
1 Battery, 9 V type 216
1 Solenoid (coil of a dismantled reed relay)
1 Nut and Bolt for iron core in solenoid
1 Meter, 50-0-50 micro-amp
1 Power supply, Apollo sealed lead acid batter (gel) 12 V 2.7 Ah
1 Trickle charger for gel cell
1 Circuit board for IC
1 Circuit board for solenoid mount
2 Perspex sheets 5 mm thick 250 mm by 200 mm
4 Rubber feet
4 Spring loaded terminals.
Dowel, stick spacers, balsa wood spacers & mounts as required

Resistors

R1 50 k potentiometer
R2 Trimpot vertical 100 k
R3 Trimpot vertical 1 k
R4 Metallic film 560 ohm 0.25 W
R5 Carbon 47 k 1.0 W
R6 Metal film 100 k 0.25 W
R7 Metal film 1.0 k 0.25 W
R8 Metal film 1.0 k 0.25 W
R9 Metal film 56 k 0.25 W
R10 Metal film 5.6 k 0.25 W
R11 Metal film 5.6 k 0.25 W
R12 Metal film 220 ohm 0.25 W
R13 Metal film 1.2 k 0.25 W

References

1. G Flodqvist, "Detecting the Polar Lights", Sky and Telescope, October 1993

2. W J Duffin, Electricity and Magnetism, 1965

3. IPS Radio and Space Services, "The Date of the Next Solar Minimum", Amateur Radio Action, May 1994

4. IPS Radio and Space Services, User Training Manual, December 1985

5. R J Thomson, The Sun and Solar Induced Terrestrial Disturbances

6. USAF, Handbook of Geophysics and the Space Environment

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■ Technical

Technical Abstracts

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Deltaloop Beam

A simple two element Deltaloop beam appeared in the *Eurotek* column of Erwin David G4LQI in *RadCom*, November 1997. The design was originally published in *Old Man*, October 1995, by Ruedi Werner HB9RZ.

The design is based on the HB9CV designs published and patented in the 1960s. There was a two element design known as the "HB9CV Beam", and a quad design known as the "Swiss Quad". The original article was published in *The RSGB Bulletin* in June 1964 by R A Baumgartner HB9CV.

The Deltaloop design shown in Fig 1 uses an H frame at the top of the metal support pole. The H frame boom is made out of non conductive material such as wood, bamboo, or fibreglass tubing; the sloping sides are wire. In the prototype on 18 MHz, HB9RZ used aluminium tubing for the tops of the loops. He found that this required an increase of 6% on all loop side lengths over the wire loop lengths given in the table. The wire loop lengths are given in Table 1.

The feed harness is shown in Fig 2. The loops are terminated on coax sockets mounted on a metal plate attached to the support pole. The phasing line uses RG-213 coaxial cable. To get the required 135 degree phasing, opposite ends of the loops are fed and an 1/8th wave coaxial phasing line is used. The coaxial fittings should be weatherproofed with either coax-seal or self amalgamating tape.

The beam can be set up initially with the feed point at eye level. The director should be set 2.3% above the operating frequency and the reflector 5.7% below the design frequency. Raising the beam to full height should result in only a small shift in operating frequency. It is best to tune slightly high in frequency to compensate for this and any shift which may be caused by a rainy day.

The beam on 18.135 MHz had an SWR of 1.1:1 and a front to back ratio of 12-15 dB. The gain was 8 dBi (which is about an S point over a dipole) which is quite a respectable performance for a simple and cheap antenna. A successful 50 MHz version was built by HB9PWQ.

Ugly Construction Tip

A means of producing strips of solder pads for ugly construction projects, including the use of surface mount components (SMD), appeared in the *Technical Topics* column of Pat Hawker G3VA in *RadCom*, November 1997. The idea came from D M Mackenzie GM4HJQ.

Strips of Veroboard, or other strip board, are cut and used as solder pad strips. The strips can be glued to a base board of plain copper laminate or blank PC board. Super-glue will be suitable and quick. Busses can be provided by

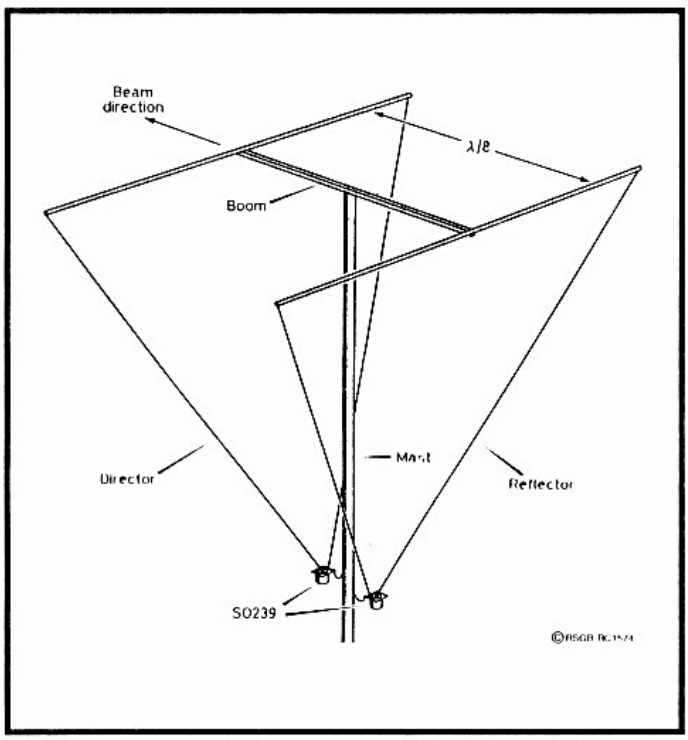

Fig 1 – HB9RZ beam with triangular loops spaced 1/8 wave at top and with no spacing at the bottom.

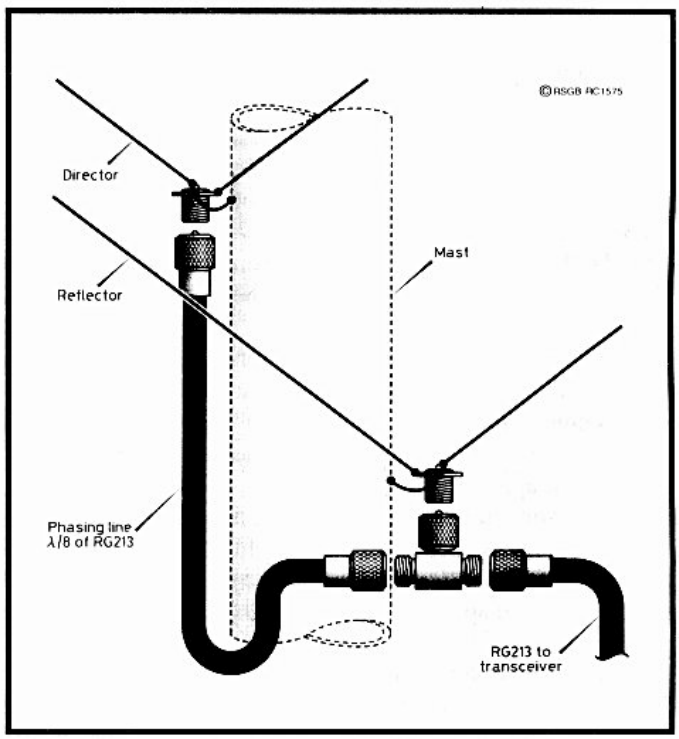

Fig 2 – Phasing feed harness for beam. Note the connections carefully as they are part of the phasing arrangement.

Table 1 – Dimensions of HB9RZ Beams with Wire Elements and Non-Conducting Booms.

Band		30 m	20 m	17 m	15 m	12 m	10 m	6 m
Design Frequency MHz		10.12	14.25	18.14	21.3	24.96	28.5	50.15
Director Total Length	m	28.99	20.60	16.18	13.78	11.76	10.4	5.91
Reflector Total Length	m	31.38	22.28	17.51	14.91	12.72	11.31	6.42
Boom Length 1/8th Wave	m	3.71	2.63	2.07	1.76	1.50	1.32	0.75
Phasing Line 1/8th Wave RG-213	m	2.44	1.74	1.36	1.16	0.99	0.87	0.494

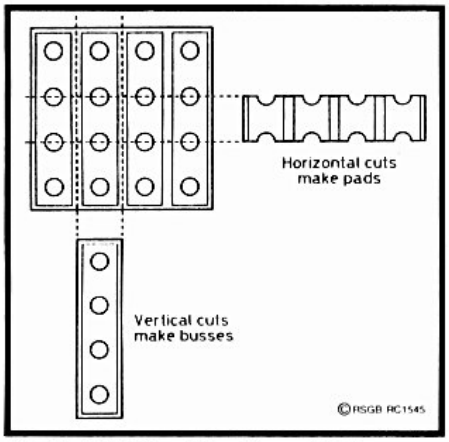

Fig 3 – Cutting Veroboard into strips of pads or busses.

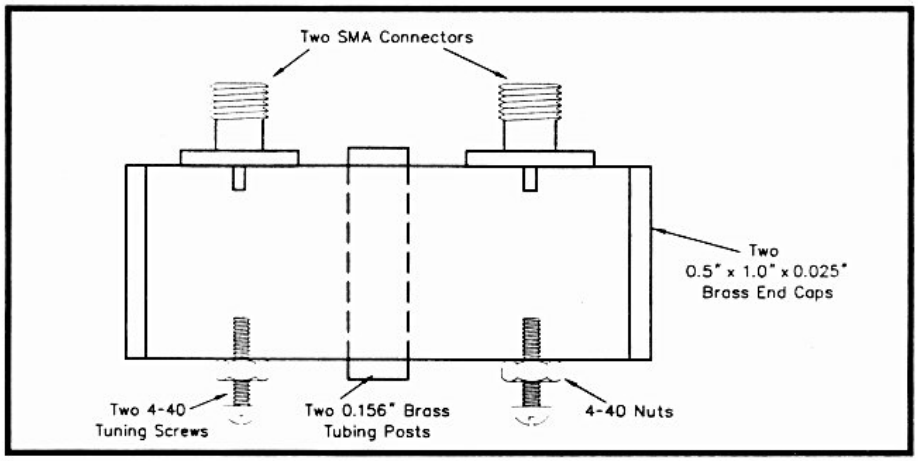

Fig 4 – 10 GHz two cavity bandpass filter.

cutting strips length-wise. The cutting of pads and busses is shown in Fig 3.

Surface mount components can be soldered between adjacent pads or from a pad to the ground plane. Components can be simply and rapidly mounted and interwired.

10 GHz Bandpass Filter

A simple 10 GHz bandpass filter capable of giving good performance appeared in *QEX*, July 1997. The author was Zack Lau W1VT.

The filter uses a short length of WR-90 wave-guide. The performance is such that the filter has low insertion loss and can improve image rejection when using a 144 MHz IF at 10 GHz.

The filter is shown in Fig 4 and the length of the piece of WR-90 wave-guide is 1.5 inches. The cavity is formed by soldering brass sheets to the ends of the wave-guide section used. Two posts down the centre line create a pair of coupled cavities. The coupling is set by the diameter of the posts. Small quantities of brass sheet, strip, tube, and rod are available in larger hardware shops and are called hobby brass.

A drilling template is shown in Fig 5. The tuning screws are shown as the USA type 4-40 but local metric or imperial

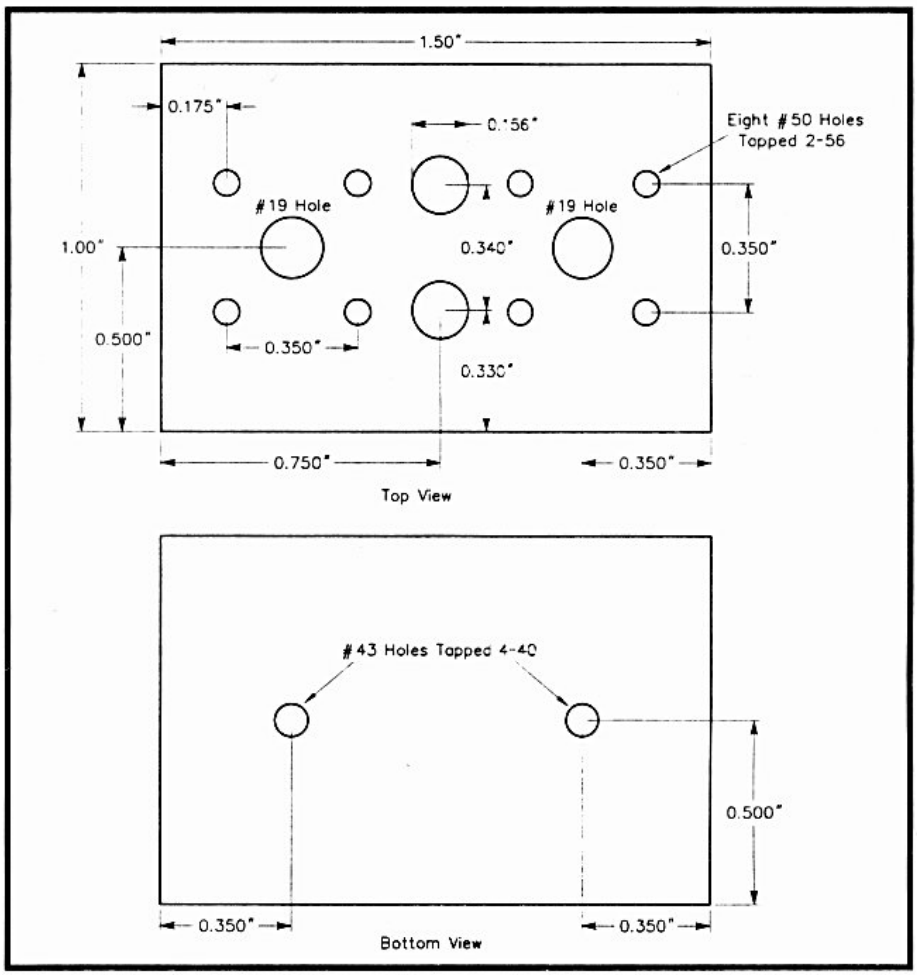

Fig 5 – WR-90 wave-guide drilling diagram.

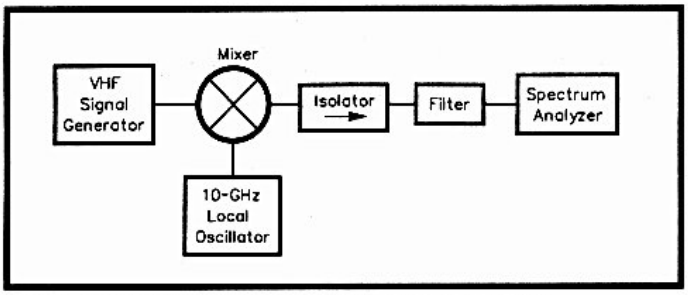

Fig 6 – Preferred filter alignment test fixture.

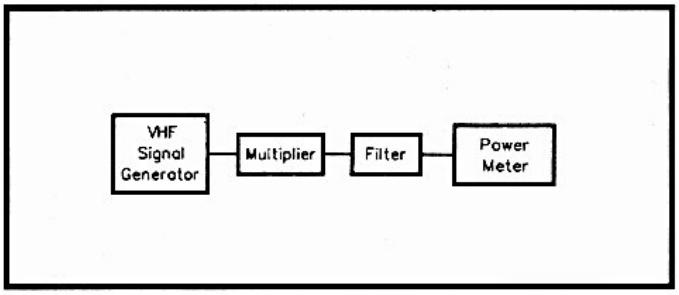

Fig 7 – Alternative filter alignment test fixture.

equivalents can be used. They will need adjustment, in any case, to tune the filter.

The probes coupling in and out of the filter could be just the SMA connector centre probes. However, Zack Lau fabricated spacers from shim brass to allow fast adjustment of the probes without the need for tedious filing of the SMA connector centre conductors. The probe depth varies the coupling and the insertion loss and interacts with the tuning.

Probe length is 100 mils for a wider filter and 80 mils for a narrow filter. These lengths are shortened by the wave-guide wall thickness and the shims. Only 30-50 mils pokes into the cavity. The narrower bandwidth version used 3/16th inch posts and the probes were 80 mils long. Remember that these dimensions are not metric.

Tune up was done using the set up shown in Fig 6. An alternative is shown in Fig 7. The set up of Fig 6 is recommended as it is somewhat simpler to use and there are less problems with interactions.

The design shown in Fig 4 had 0.6 dB of insertion loss and a 3 dB bandwidth of 106 MHz at 10 GHz. Image rejection with a 144 MHz IF was 33 dB. Another filter built using 3/16th inch posts had an insertion loss of 1.3 dB and a 3 dB bandwidth of 36.7 MHz, and gave 47 dB of image rejection for a 144 MHz IF.

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■ Repeater Link

Remote Mute for a Voice Repeater

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If you have ever maintained a voice repeater, you would have had the experience of the mute on the repeater's receiver remaining open and timing out the system. If not, then consider yourself lucky. Often this mute condition requires a site visit. This is not a great problem if the site is close by and easily accessible, but most repeater sites are a considerable distance away with difficult access.

Many years ago I designed a remote controlled mute that used a digital stepping integrated circuit. It worked but was a little complicated in operation. Model 2 uses a motor-driven potentiometer. Ever since I first saw these motor-driven pots on the market, the thought has been to develop a circuit to control one for use as a mute on a repeater.

The Motor Pot

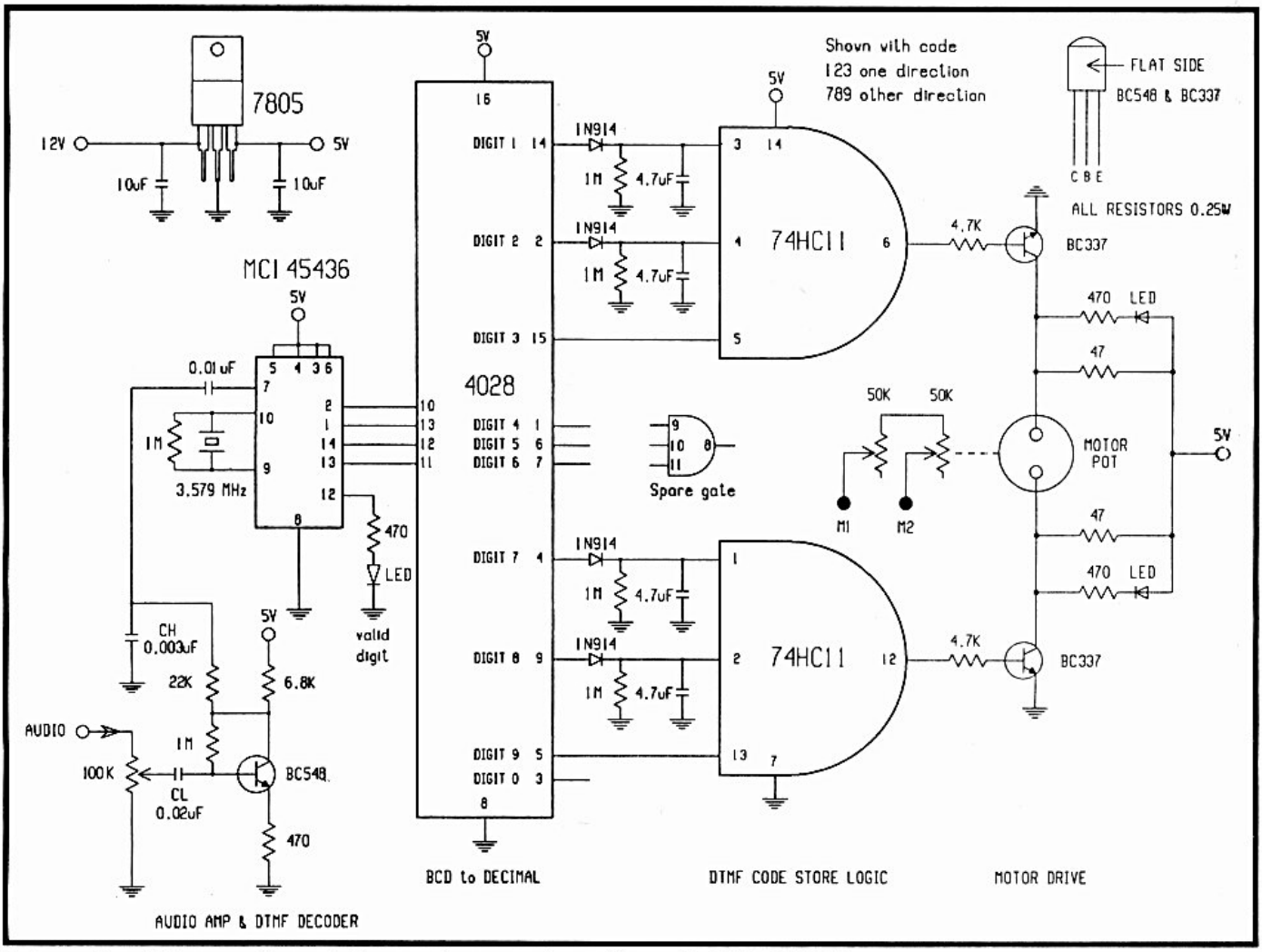
These motor-driven pots are a dual gang 50 k pot driven by a small, three to six volt DC motor and a few simple plastic gears. The pot can also be turned by hand, as it incorporates a clutch. The pot turning is reversed by reversing the DC voltage to the pot. Several electronic stores sell them, including Dick Smith and Jaycar. The pot fits a normal size hole with the motor and gears at the back of the panel to which the pot is attached.

The Circuit

Control of the motor-driven pot is via DTMF. The entire circuit runs from a regulated five volt supply, including the pot. A DTMF decoder IC decodes the DTMF tones into BCD. Note the inclusion of the single transistor amplifier in the audio input path to the DTMF decoder. This may not be required but offers a non-loading high impedance input and the inclusion of audio frequency adjustment.

It is most important to have a flat frequency response for the audio tones fed to the DTMF decoder chip. This IC can tolerate some frequency level difference between the low tones and the high tones, but not a lot! The 0.003 µF capacitor (CH) and the 22 k resistor provide some high frequency roll-off which is required by the repeater receiver with which I used this circuit. This may not be the situation with your receiver; it may even require low frequency roll-off. If so, remove CH and reduce the value of CL.

A simple test of the frequency response between the lowest and highest



Schematic of the remote mute for a voice repeater. ***(drawn by Will VK6UU)***

DTMF tone is to simultaneously push buttons 1 and A on the DTMF tone pad for the lowest single tone, and buttons A and D for the highest tone. If you only have a 12 digit key pad then push 1 and 3 for the lowest tone and 3 and # for the highest. When two keys are pushed simultaneously a single tone is heard and the relative levels between the lowest and highest tones can be measured. Adjust the frequency response so the lowest and highest tones are the same level. If the difference between the tones is more than about 6 dB (twice the voltage), the DTMF decoder chip will not decode.

The decoded DTMF tones are BCD output and have to be decoded further to the actual decimal digits. This is done in the 4028 IC. Note that I have only used a 10 digit decoder chip to do this, so only digits 1 through 0 are available. This was done to save space as the full 16 digit decoder IC is much larger.

Next comes the code store logic. Three digits are required to rotate the pot in one direction and three different digits to rotate the pot in the other direction. To produce a logic high output from the 74C11 IC, all three input gates must be high. However, you cannot push all three keypad buttons at the same time, so the first two digits have to be stored for a short time, about two seconds.

On pushing the final digit in the three digit sequence the output of the 74C11 goes high and the corresponding BC337 is turned on. When the third digit is pushed and held down, the pot will rotate for the duration of the time constant of the 1 M resistors and 4.7 µF capacitors used with digit one and two. This is more than enough time to give the mute pot a nudge one way or the other.

In the example shown, digits 1 and 2 and 3 rotate the pot in one direction and digits 7 and 8 and 9 in the other direction. You can use any code combination you like but it is best to use three completely different digits for clockwise and counter clockwise rotation.

How to reverse the voltage to the motor was the interesting bit; particularly how to make it simple? Looking at the circuit, the two 47 ohm resistors are the solution. With no drive to either BC337, five volts is fed to each side of the motor through each of the 47 ohm resistors. When one of the BC337s is turned on, the corresponding five volts to that side of the motor is shorted to ground, the 47 ohm resistor limits the current, and the motor turns in one direction. The opposite happens when the other BC337 is turned on. Note that the motor current flows through the opposite 47 ohm resistor and results in about 3.5 volts being applied to the motor.

Extra Information

The prototypes were constructed on Tandy isolated pad vero board. The LEDs help in fault finding. The LED attached to the MC145436 DTMF decoder IC is a valid digit output and turns on whenever the IC decodes a valid DTMF tone pair. The other two LEDs show there is an output from the digit code store IC.

All logic levels are active high. Push a digit and the corresponding decoded output from the 4028 goes high, as does the output from the 74C11. The circuit draws 11 mA when the pot is not being driven and less than 150 mA when the pot is being rotated. The pot requires about 40 mA.

Note from the circuit that I wired the two pots together. I found just using one 50 k pot on its own would not correctly operate the mute in an FM828; a resistance of more than 50 k was required. By wiring the pots as shown, a 100 k pot is achieved between M1 and M2, but any combination between 25, 50 and 100 k is possible depending on your requirements.

I trust that this circuit works for you and saves many a trip back to a repeater site just to give the mute a nudge.

ar

■ Direction Finding

Misbehaving EPIRB

Ron Graham VK4BRG
PO Box 323
Sarina QLD 4737

At 2 pm (approx) on Friday, 7 February, Airservices Australia (AA) phoned saying that a Hercules had reported an activated Emergency Position Indicating Radio Beacon (EPIRB) in the area and asking if I could hear any signal on 121.5 MHz (AA maintain a data base of people who have direction finding capabilities on beacon frequencies).

No signal was heard.

A short time later they called again saying that a police sergeant who had left Mackay to investigate had been involved in a traffic accident – the sergeant being OK, but not the vehicle! They then asked if I could go to an area north of Sarina (21 degrees 22 minutes south, 149 degrees 07 minutes east) where a satellite pass had indicated the offending beacon's location.

I could visualise a problem with me being in the field and not being able to communicate with AA in Brisbane. So I made arrangements with Wally VK4DO to handle the phone communication to Brisbane, with us using the Mt Seaview amateur radio repeater to maintain contact.

Nothing was heard from a vantage point overlooking the above area. AA then asked if I would stay in the area and that two choppers were on the way. I used this time to travel around the Munbura area looking for a signal. One chopper was observed to the north where it turned around and headed off into the distance in the direction of the southern extremity of Mackay.

At 3.45 pm I was back on the Sarina Homebush Road when a message was relayed to me asking me to proceed to Dunrock (close to the coast) where the chopper had heard signals.

At 4.15 I had searched around the Dunrock area. I had mentioned that the Hay Point Harbour Master's office provided a good vantage point in that area. It was suggested that I proceed there. However, as I was in the area I decided to search around McEwens Beach area as it was a fair way back from Hay Point. Nothing was heard so I proceeded to Hay Point.

Back Home?

At 5 pm at the Harbour Master's office nothing was heard. At this stage I was convinced that the beacon had been turned off. Previously the chopper had reported hearing the signal and that it had ceased abruptly. So I headed home via a road close to the coast with the idea of having a general listen on the way.

At 5.15 pm I was called to say some new information had come to hand. A chopper had located the origin of the signal to be on either the *Belyando* or *Broadsound*, two tugs in the tug harbour, and that I was to return to the Harbour Master's office.

At the office they were trying to contact the owners of the tugs, BHP Marine, without success. I was told that a security gate blocked the road to the tug harbour. However, I decided to go to the general area where I did hear a weak signal with no audio. The chopper had also reported the lack of audio. I moved around the area, but didn't hear the signal. So I returned to the original spot. Now there was no signal!

I was deciding my next move when the signal re-appeared, weak, with audio for about five seconds. After a minute or so the signal with audio appeared again, this time for about a minute. I convinced myself that the signal was coming from where there was a number of vessels tied up in the tug harbour; but in the same line, about a mile away, a large ship was loading at the end of the main wharf.

AA advised that contact had still not been made with the tug owners and suggested that I had a meal break. I used this time to travel home for some back up equipment.

I returned to the Harbour Master's office where I was told that the owners had been contacted at 6.30 pm. I proceeded to where I had heard the signal previously; nothing heard. I climbed past the first security gate which got me to within 50 metres of the vessels in the harbour. No signals were heard from that distance, or from along the area that I had walked.

I returned to my car, reported the above and suggested that maybe the owners had already been, found, and turned off the offending beacon.

Skipper

At this time a car appeared with two people connected with some of the tugs.

One was the skipper of the *Belyando*. We proceeded through the two sets of security gates and onto the *Belyando*, a sister ship of the *Broadsound*. They were moored on either side of a large steel jetty complex.

Weak signals were heard in an area on the jetty and between those two tugs. We checked an EPIRB in the wheel house and one on the railing outside the wheel house. There were also EPIRBs fitted in two life rafts. No signal source was found. The *Broadsound* was checked with the same result.

However, the weak signal remained just audible on the jetty between those two tugs. A search for signals possibly originating from two other large tugs and four small line vessels proved negative. By this stage I realised something "very strange" was happening so I looked around under the wharf area, and quizzed the skipper, thinking a crew member might have left an EPIRB below deck, etc, etc. It was impossible to get a bearing on the weak signal with the masses of metal around – the two tugs and the large metal jetty structure.

While talking about options the signal increased in strength, allowing me to DF the source as the EPIRB on the railing of the *Broadsound*. The skipper went back on board and I remained on the jetty adjacent to the EPIRB. The EPIRB in question was also fitted with a light. It had a three position switch, OFF – ARM – TEST. It is normally left in the ARM position and is automatically activated when it is removed from its cradle. In this case, a signal was still being generated when it was turned OFF. No signal at all when turned ON. The tug skipper needed some convincing that the unit was faulty, but when I pointed out that the light was not coming on when it was switched to the ON position it became fairly obvious.

We discussed various ways of dealing with the situation and eventually took the unit to their workshop where it was dismantled and I disconnected the battery. We were all amazed to see a quantity of water in the unit, no doubt the cause of the intermittent operation, operation at various output levels and the incorrect operation of the three position function switch.

At 9 pm I was back home after travelling almost 300 km.

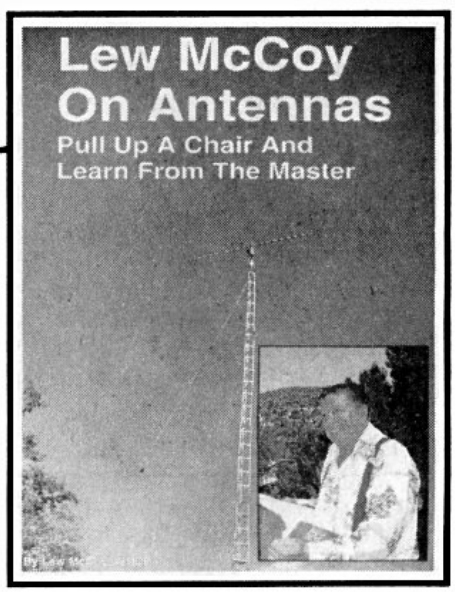
Footnote

I manufacture and supply to various State and Federal Government Departments, Air Sea Rescue Groups, etc a set of portable DF equipment specifically designed to assist those authorities in locating activated emergency beacons. Interestingly enough, the design is based on that of some two metre amateur fox hunting equipment. No doubt rare these days, but this nevertheless shows that amateur radio equipment can still have applications in the commercial/public assistance fields. **ar**

■ Book Review

Lew McCoy on Antennas

Publisher: *CQ Communications, Inc*
Author: *Lew McCoy W1ICP*
Reviewed by: *Evan Jarman VK3ANI*
ISBN: *0-943016-08-8*
Paperback, 280 by 217 mm, 112 pages



With a subtitle of **Pull Up A Chair And Learn From The Master**, you get the feeling that this book is like a fireside chat.

Lew McCoy, in his eighty plus years, has acquired a wealth of knowledge. He worked with the ARRL for over thirty years, retiring as Technical Editor.

The book starts with some of the concepts in transmission lines before proceeding onto antennas. Many of the technical concepts are reduced to similarities like a flow of liquid in a pipe. This book does not claim to be a rigorous analysis.

The chapters on antennas cover HF, including a chapter on mobile antennas. There is also a chapter on VHF. There is very little in the way of set designs, the author preferring to rely on his experience to point out the flaws and virtues in various types of antennas. He also describes where compromises can be made between opposing characteristics.

In some cases, references are given to benchmark articles in amateur radio magazines as the best start in one facet of a particular type. He then goes on to discuss other facets of the design. The trap beam is such an antenna; his reference to the first article published is still recommended reading for the home brewer (Buchanan W3DZZ, *QST*, June 1955). One article is published.

The author draws on considerable experience and quite often describes the work that went on when he was involved. This book takes a very pragmatic approach to antennas. It is devoid of any mathematical treatment. Lew McCoy is just passing on some of his experience in an almost narrative style. It is more a simplified guidebook from someone who has been there and done that.

The book is obtainable from Daycom Communications (stock number BR94) for $28.

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■ Book Review

Royal Air Force Beam Benders

No 80 (Signals) Wing 1940-1945

Publisher: *Midland Publishing (Midland Counties Publications Unit 3, Maizefield, Hickley, Leics LE10 1YF, UK. Phone 01455 233747)*
Author: *Laurie Brettingham*
Reviewed by: *Gil Sones VK3AUI*
ISBN: *1-85780-040-0*

There have been many books about the Second World War and its many technological facets. The development of many techniques, which we now take for granted, was accelerated, but there was often a struggle by the "boffins" to achieve these techniques and counters to them.

There have been two excellent books in the last 20 years. *The Secret War* by Brian Johnson and *Most Secret War* by R V Jones chronicled many of the developments and their deployment.

A recent book by Laurie Brettingham records the history of those who carried out the investigation and later the masking, jamming, and bending of the navigational bombing beam systems. The same people also operated deception schemes involving mock cities and industrial complexes made up of pyrotechnic devices devised by movie film special effects personnel.

The book tells the story of the setting up and operation of a specialist unit formed to carry out unusual tasks in conditions of great secrecy. Staff were employed on a strict "need to know" basis and often had little idea of how their job fitted into the bigger picture or what other operations were involved.

Masking HF navigational beacons is one lesser known technique which was carried out by this specialised unit. The navigational beacons which enemy bombers used to return home to their bases were received and re-radiated in such a way that the crew would be unable to distinguish between true and false bearings. The result was confusion and often the loss of bombers which strayed and were forced to land in unfamiliar territory through lack of fuel. Many crash landed or landed on allied airfields due to this deception.

Manning mock targets laid out in fields must have been a lonely and nerve wracking occupation. These mock factories and railway yards and towns were composed of lights and pyrotechnic devices controlled by an operator in a bunker close by. They were designed and set up under direction from movie effects specialists to look like targets under bombing attack. They mimicked the real targets close by and attracted bomber crews to bomb them in preference to the real thing thus diverting bombs from the real targets.

The bombing beam systems have been well covered in previous books. This book tells the stories of those who flew the investigation flights under primitive and dangerous conditions and manned the countermeasures. The experiences of those who took part, often not knowing the purpose of what they were doing or how it fitted into the overall operation, are of great interest.

The book gives an interesting overview of the technical battle and those who took part. Many of those recruited for this were radio amateurs and many went on to be leaders in the post war expansion of radio and electronics.

The book was obtained direct from the publisher in the United Kingdom after reading a review by Pat Hawker G3VA in *RadCom*, August 1997. As it was a specialist publication, a copy was obtained direct from the UK. The phone number of the publisher was obtained and the book ordered using a Visa card to pay for it. The service from the publisher was excellent and the phone call was relatively cheap.

The book cost just over 17 pounds sterling with surface post and packing. Delivery time was around eight weeks. Paying by Visa minimised the costs of currency conversion and the phone order was fast and cost less than $2.00 for the call. You could speed up the process by using air mail delivery at extra cost. Remember the phone number given is a UK phone number and you must drop the leading 0 and precede the number with the country and international access codes.

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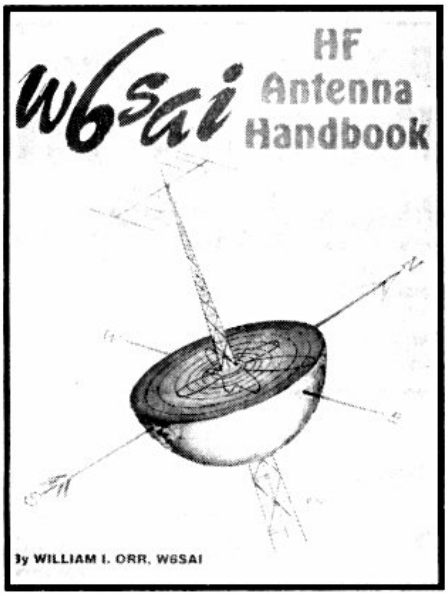
■ Book Review

W6SAI HF Antenna Handbook

Publisher: *CQ Communications Inc*
Author: *William I Orr, W6SAI*
Reviewed by: *Evan Jarman VK3ANI*
ISBN: *0-943016-15-0*
Paperback *275 by 217 mm, 164 pages*



Bill Orr has been running a technical topics column in *CQ Magazine* for many years now. This book is a compilation of the antenna related articles that have appeared in that column. A few articles from other magazines, like *Amateur Radio*, have also been included.

The book concentrates on HF designs. It is a recipe book of mainly standard antennas and shows how many of the contributors have adapted the designs. Also included are those designs that have come into being through necessity, the mother of invention. The majority of the book is practical. A reader should be able to duplicate most of the designs. A little theory is included, but mainly as a guide to the sort of response to be expected.

Included is a description of those extra things needed in antenna construction. Things like safety equipment and construction methods. These are the bits that theory never tells you, but are still very important.

Also included are the peripheral parts of an antenna system. There are a few chapters on transmission line and impedance matching equipment. The articles on Z matches by the two Rons, VK3OM and VK3AFW, and Lloyd Butler VK5BR figure prominently.

Some errors were spotted in the dimension tables for the sides of cubical quads in two places. They involved repeating 20 m dimensions as 10 m dimensions, so are probably typographical and are easy to work out.

There is much variety in the designs which makes the book a good source of ideas. Some designs did require some lateral thinking in their evaluation. The majority of the designs are conventional wisdom with some tweaking.

The book is obtainable from Daycom Communications (stock number BR95) for $35.

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■ Book Review

More Out Of Thin Air

Publisher: *PW Publishing Ltd*
Reviewed by: *Gil Sones VK3AUI*
ISBN: 1-874110-05-0

More Out of Thin Air is an improved and updated version of the original *Out Of Thin Air* book published in the early 1980s. It draws on the considerable number of very interesting articles published in *Popular Wireless* over many years.

Some items by the late Fred Judd G2BCX, of "Slim Jim" fame, and the late Charles Molloy G8BUS, are included as they are of considerable interest. There are, however, many new articles of interest which have been included.

The book covers practical antenna designs for all bands from HF through UHF. There are also many practical tips for the keen antenna experimenter. They provide a different view from the many books originating in the USA.

There are also some reviews of antenna systems and test equipment. These are all of current items and are of some interest.

The book contains much of interest to the keen antenna experimenter and complements the many other books from the USA. The book is obtainable from Daycom Communications (stock number BR600) at the very reasonable price of $20.

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■ Transmitters

Further Thoughts on the Garran

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Garran ACT 2605
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Introduction

Since its completion about three years ago, a number of improvements have been made to the *Garran* 40 metre CW transmitter (*Ref 1*). The most notable of these has been the addition of a receiver section (*Ref 2*). Further modifications have made the rig more pleasant to use. This article brings the reader up to date with these latest changes, some of which may be applied to other QRP projects.

Extended VXO Tuning Range

A major limitation of the original *Garran* was the restricted VXO tuning range (4-5 kHz typical). Experimentation with different series inductances was rewarded by an increase in frequency shift to 9 kHz. The modified transceiver now covers 7.011 – 7.020 MHz.

The modification is simple. All that is needed is to use a different inductance in series with the crystal. The toroid used in the prototype is removed and a new inductance is substituted. This consists of 14.5 turns of enamelled copper wire (from an old transformer) wound on a two hole TV balun former (Fig 1). These formers come in two sizes. This circuit uses the smaller type (about 6 x 7 x 13 mm – DSE Catalogue No R5445).

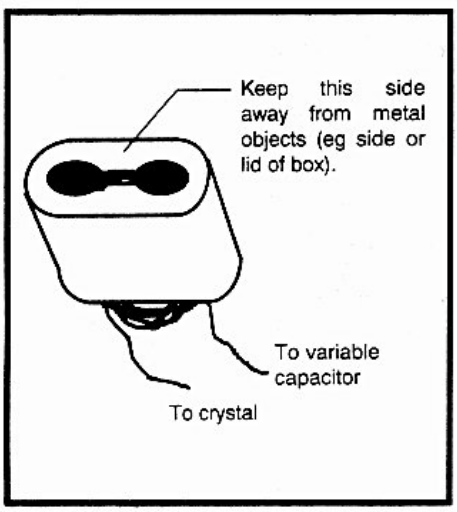

Fig 1 – TV balun core inductance used in modified VXO.

Because of differences between individual crystals, a certain amount of experimentation is required in the winding of this coil. Start with (say) 10 turns and listen to the VXO's output on a receiver. Note the tuning range, and the ability of the oscillator to restart (at any frequency setting) when the power is removed and then reapplied. If the oscillator is unreliable in starting, remove a half turn at a time and test until its operation becomes reliable.

If the oscillator was reliable, try adding more turns (half or one at a time) and see how far you can pull the tuning range down without sacrificing coverage at the top end of the band and/or compromising oscillator stability. A range of 9 kilohertz was obtained in the *Garran*, though similar VXOs on 7 MHz have yielded shifts in excess of 15 kHz.

Care should be taken when positioning these balun formers – proximity to metal objects affects their operation. When the new VXO inductance was first added to the *Garran*, it was found that operation became erratic and RF power output varied wildly across the VXO's tuning range when the top lid was screwed into place. Without the lid, operation was perfect.

Experiments with a small piece of metal being moved around the VXO area of the rig (to simulate the effect caused by the lid) found that the problem only occurred when metal was near the balun former. Moving the balun former further from the lid (by shortening the connecting leads), and turning it 90 degrees so the plane of the loop formed by the turns was parallel to the horizontal circuit board, completely cured the problem.

Increased Power Output

More power is possible if the 2N3053 PA transistor is replaced with a 'stronger' device. In the prototype, the use of a VHF transistor (believed to be similar to a 2N3553) boosted the output power to two watts. It is likely that any further power increase would require the addition of a new power amplifier stage.

Transmit/Receive Switching

The switch labelled Rx/Tx in Fig 1 of *Ref 2* is unnecessary, as all switching is

handled by the 2N2905 PNP switching transistor. The switch can simply be removed and the connections bridged.

Preventing Broadcast Station Breakthrough

No receiver overload from strong 7 MHz AM broadcast signals was noted during the day. However, in some areas, twilight and evening operation may be hampered by such overload. If this is a problem for you, wire a low value resistor across the receiver antenna input (from the relay side of the 47 pF capacitor to earth). In the prototype, a 47 ohm resistor cured the overload with a negligible effect on receiver sensitivity.

Receiver Overload from Strong In-band Signals

Ref 2 mentioned that a stronger product detector may be required for serious QRP DX work. This comment was based on the *Garran*'s performance in the presence of local (1 km distant) amateur CW signals 10-15 kilohertz from the frequency to which the transceiver was tuned.

Experiments with a direct conversion transceiver similar to the *Garran*, but equipped with a better audio filter, revealed that the overload disappeared when the filter was switched in. This seems to indicate that the overload was occurring in the audio amplifier stages rather than the receiver's NE602 product detector.

Those wishing to use the *Garran* in the presence of strong local signals should therefore add a narrow audio filter (consisting of at least two op-amps) to make the transceiver more selective and reduce the risk of the audio amplifier being overloaded. Once this has been done, the receiver (with NE602 detector) should perform well in all but the most hostile RF environments.

References

1. Amateur Radio Magazine, January 1996, page 10 (see also February 1996, page 55)

2. Amateur Radio Magazine, September 1997, page 8

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■ Operating

Award Chasing Not for the Fainthearted!

John Saunders VK2DEJ
PO Box 299
Ryde NSW 2112

I am sitting in my shack doing some heavy thinking. It is October 1992. Ryde is celebrating its bi-centenary and the fact that it has been promoted to being a city. What with all the merriment and carrying on, I am using a special event call sign of VI2RC, and am thinking that, if all is well I might just get to a DXCC with this call.

I throw out another "CQ DX" call and, to my delight, back comes JT1BV who is wondering what gives with the VI call. I tell him how we are a whole 200 years old, but he is not impressed; apparently the Mongolians have been around a bit longer than that!

He then tells me that the Mongolian club has a series of awards concerning the Khan family, well known travellers in their time.

He sends me the award details and I discover that I can claim their top award, named HUBILAI'S CHRONICLE after the chap who was the head man for some 10 years, having lived 80 years which, in those days, was quite some achievement.

So, I make out an award application and dig ten green stamps out from under the floorboards and proceed to my local post office.

There is much excitement when I tell them that I wish to send a registered letter to Mongolia. It seems that there is not much call to send mail in that direction. The last I see of the letter it has sealing wax and many coloured lines all over it. I note that it is early in 1993, so I figure it will be a while before a yak staggers through a snow-filled pass carrying it into Ulaanbaatar.

I wait some months until June when I receive a letter letting me know that I have the award, serial number one, and that it will be posted in the first season of the year. This is a great surprise as it is already June. So, when do they have their first season? As there is no Mongolian embassy or local restaurant where I can find out about these seasons, I calculate that I will wait until the end of the year so that all the seasons must have come and gone.

Early on in the new year I write and ask when will the award arrive. Nothing happens, so I write again, but still nothing happens.

Now, it so happens that in sending letters to some places there are certain citizens who will "nick off" with the stamps or rip the letter open in order to borrow any green stamps or IRCs. I usually ask the post office to provide a label which states that the postage has been paid. At times you enclose a single unfolded piece of paper and then cut the corners on the envelope so that certain curious people can sticky-beak inside to see that no valuables are inside. I even try another registered letter, but to no avail.

This is all very distressing and I start to think that I am doomed to never see this glorious award.

Two years later and I am telling my sad tale to Bill VK4UA. He says that he knows a Mongolian amateur who always answers his mail. So, I get the box number and dash off a letter explaining the situation and asking if he can help.

As I do not know this fellow I figure a couple of green stamps will not go astray. But they do! My letter turns up at home a few days later in an Australia Post envelope saying that my letter was found on the mailroom floor here in Sydney. Naturally, the envelope and green stamps

ULAN-BATOR MONGOLIA

JT1BV

CQ ZONE 23

ITU ZONE 32

P. O. BOX 106,
ULAANBAATAR- 51,
MONGOLIA, ASIA

DATE	GMT	TO RADIO	RST	MHZ	MODE	QSL
Oct 23 1992	11:29	VI2RC	57	14221	2×CW 2×SSB	TKS PSE

NARANBAATAR T.
P.O. BOX ~~639~~,
ULAN-BATOR

73! Naraff ‹NARAN›

The Mongolian QSL card.

are missing. Obviously this sort of thing does not just happen in third world countries, but also happens right here!

Being a slow learner I try again and two weeks later my empty envelope is returned to me by a Mongolian who says he found the envelope in his postal box.

I figure this is a good sign. I'm getting closer. I try a registered letter and it is never heard of again. I go back to cutting off the corners but this, too, vanishes.

Then I get a great idea. I send a postcard with a label but it, too, disappears into that great post box in the sky!

At this time I am crying into my beer in a local bar when in walks Steven Pall VK2PS. *"What's with all the sobbin' and cryin'?"* he asks.

Sadly, I tell him the whole tale which, I am pleased to see, brings a tear to his eyes.

"Well", say Steve, *"it so happens I know a journalist who is a ham who is going to Mongolia next week. Why don't you write it all out and he will ask the Mongolian wheels just what gives"*.

This is such a good idea that I do it forthwith and send it off for Steve to fire up his friend.

Months later I get a phone call and a voice asks if I'd like to call around and pick up my Mongolian award. I get there at the speed of sound!!

So now it hangs on my wall secured by the biggest nails I could find. And, to round off the whole story, I managed to got the ARRL awards for DXCC and WAS with my VI2RC call.

Let this be a warning that award chasing is not for the faint hearted!

ar

The Mongolian HUBILAI'S CHRONICLE certificate 001 awarded to John VK2DEJ.

QSLs from the WIA Collection

Ken Matchett VK3TL
Honorary Curator WIA QSL Collection
4 Sunrise Hill Road, Montrose VIC 3765
Tel (03) 9728 5350

VI2CQ

This special events QSL celebrates the participation of the children of Camp Quality in amateur radio. The camp for children with cancer was held in Tweed Heads in April 1994. Over a dozen operators took part by roster each day, and for the children it was truly a worthwhile experience with amateur radio.

Several members of the Gold Coast ARS and other radio amateurs were involved with the project including Roy VK4LPV, Ralph VK4VQ, Don VK2CYI (now VK4BY), Frank VK4EH and Mary VK2BEM to name just a few.

Camp Quality is a non-governmental organisation which was started by an Englishwoman, Vera Entwistle, in Sydney in 1983. The organisation, whose aim is to give support to children with cancer, now has offices in no fewer than 19 countries throughout the world.

NN50CIA

This QSL, NN fifty CIA, commemorates the fifty years of the American Central Intelligence Agency, which was established

District 66 (NSW)
Masonic Welfare Association Inc.

Seagulls
Rugby League Football Club

KIDS WITH CANCER 1994

VI2CQ

CAMP QUALITY

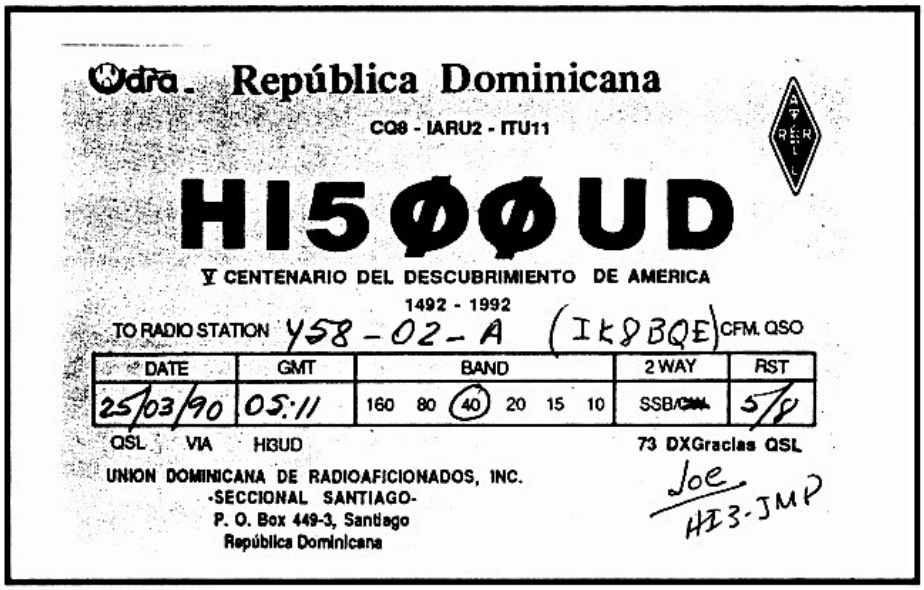
To Radio VK3TE

This Special Events Station was operated by Members of the VK4WIG GOLD COAST AMATEUR RADIO SOCIETY

DATE	TIME	RST	FREQ	MODE
7-4-94	0.15utc	5/8	14.250	SSB

73 ES TNX fer Contact STAN. VK4AIC ADRIAN

Printing Courtesy of Tweed Instant Print



Ondra. República Dominicana

CQ8 - IARU2 - ITU11

HI5ØØUD

V CENTENARIO DEL DESCUBRIMIENTO DE AMERICA

1492 - 1992

TO RADIO STATION Y58 - 02 - A (IK8BQE) CFM. QSO

DATE	GMT	BAND	2 WAY	RST
25/03/90	05:11	160 80 (40) 20 15 10	SSB/CW	5/8

QSL VIA HI3UD 73 DXGracias QSL

Joe HI3-JMP

UNION DOMINICANA DE RADIOAFICIONADOS, INC.
-SECCIONAL SANTIAGO-
P. O. Box 449-3, Santiago
República Dominicana

in September 1947. Since radio communications play a vital role in the collection and dissemination of intelligence information, it is not surprising that several CIA employees are active amateur radio operators.

This commemorative QSL introduces a new prefix, NN fifty, although several prefixes using high numerals have been used before, such as NQ two hundred commemorating the 200th anniversary of the constitution of the USA and W84, W23 celebrating the twenty third Olympiad held in California in 1984. The 10th Pan American Games, held in Indianapolis in 1987, was also celebrated using the callsign W87PAX.

HI500UD

The discovery of the "New World" by Christopher Columbus ranks as possibly the most significant event of that century, so much did it foster trade and lead to extensive colonisation. Columbus was born in 1446 in Genoa, Italy and began a life at sea at an early age. We know little about his early voyages except that he voyaged to Iceland and was shipwrecked off the coast of Portugal when he was only 24.

After the discovery of Cuba, Columbus went on to discover the island of Hispaniola, which today is made up by both Haiti to the west and by the Dominican Republic to the eastern end of the island. The Republic is the oldest settlement of European origin in the New World and was established in 1496 by Bartholomew Columbus, the brother of the great navigator. This QSL, HI five hundred UD, celebrates the fifth centenary of the island's discovery in 1492.

Thanks

The Federal body of the WIA would like to thank the following for their kind donations of QSL cards towards the collection:

Allan VK2PT, Jim VK2ZC (courtesy of Bill VK2XT), Trevor VK4ARB, Alan VK4AAR, Neil VK6NE, Peter VK4VW, Bill VK2WS, Jeff VK6AJ and Alan VK3AUC.

Also the friends and relatives of the following "SKs":

Ross VK5KF and Rex VK5DO (both courtesy of Geoff VK5TY), Norm Mortlock VK2PQ (courtesy of David VK2AIF), Tom Dowling VK4OD, Bill Tallent VK3TT (courtesy of Bill VK3PH), Bern VK3IW (Pre-war – courtesy of Alan VK3AUC), Bruce McCubbin VK3SO, Rex Shilton VK4CAG and Joe Ellis VK4AGL (both courtesy of Geoff VK4GAP and the Sunshine Coast ARC).

ar

Svalbard Again

(News from Gwen Tilson VK3DYL)

31st December 1997 was the last date to register for the Polar YL meet in August and so far there are 55 participants (36 YLs) from 11 countries: Norway, Switzerland, Germany, Australia, Japan, Luxembourg, France, Italy, Canada, Sweden and Finland, with some expected from USA and England and, hopefully, Monaco, with a total of about 100 people attending.

Gwen feels that the hotel in Svalbard, like that in Toronto, will never be the same again. She has her fingers crossed they can all speak at least a little English, but is armed with a Norwegian dictionary/phrase book and can already say "tusen takk" meaning "a thousand thanks".

TF YL Activity – Iceland, Land of Ice and Fire

(News from Ruth IT9ESZ)

It was a very short time between the idea to go to Iceland for a radio-vacation with Ruth LA6ZH (Oslo) to its realisation. Oslo-Ruth, my good friend for many years, was a great help for this undertaking. Her married son Jens lived in Reykjavik so we could count on him for help. Also she personally knows the well-known local OM, Vilhy TF3DX, who was most helpful. He did a wonderful job putting up a suitable antenna, a long wire in the backyard of Jen and Dora's house, with the permission of various neighbours.

We chose mid-June to spend our work-holiday in the beautiful and fascinating capital. In Jen's house we had comfortable accommodation and one of our bedrooms in the basement was also the shack. We agreed beforehand about time-sharing the only transceiver and Oslo-Ruth's fixed times for her satellite-transmissions (which she'd learnt only a month earlier.)

She travelled on a direct flight from Oslo to Keflavik and carried the IC-751A, the new antenna tuner MFJ Deluxe Versa II, the CW key and the microphone with her. I travelled light, from Palermo via Zurich and Copenhagen to Iceland with only my headphones! We didn't take along an amplifier since in Iceland one can only have 200 W output.

Oslo-Ruth was in charge of CW and I transmitted on SSB. The bands and frequencies were made known via DX clusters, e-mail and personal letters, so the pile-ups were assured!

Who knows about the pounding-heart feeling at the first QSO in a DX location? Well, my first contact from TF was with Christa DJ1TE who had been waiting

patiently for hours, along with lots of other DL-YLs. Hearing a familiar voice was a "just perfect" opening to my six days activity.

I had good signals into Europe with only 100 W. Conditions were reasonable. We knew about the unlucky position of Reykjavik with the aurora-belt right over the region with about 243 aurora-days a year (1-5 days a year in Europe) and frequent black-outs, too. Further north in Greenland would be better.

The first days passed very fast. Oslo-Ruth usually got up very early for her transmissions and I stayed on the bands until late after midnight. The 20 m band was the best. On 15 m I had only five QSOs, four with DL YLs, but the 40 m band was often open in the evening. Then nice OM friends informed me of the opening and prepared the way for my QSY to 7 MHz. I'm very grateful to many OMs who helped me to run the pile-ups in an orderly manner and with calm, also reporting the QRP stations which I couldn't hear in the crowd. A hearty "Grazie" to all.

Ruth and I usually went for a walk downtown once a day, and in the evening we sometimes went out for supper to taste the great variety of fish and lamb (Iceland has 250,000 inhabitants and 600,000 sheep!). We were without our husbands during our radio-activity; both of them are non-hams, and it worked out perfectly.

After only four days, Oslo-Ruth had a heart-attack and had to be rushed to the nearby hospital; she stayed there for over two weeks. Luckily she feels much better now and carries on her numerous duties as before. She was very unhappy about all the skeds she missed with her friends, especially the satellite ones, but I'm sure they understood.

I also had a very pleasant visit with two local YLs, who Vilhy introduced to me, Frida TF3FHT and Soffia TF3GKT, who are never on SSB. That is why there is a great demand for TF YL contacts. Maybe they'll give it a try one day.

The rest of my days without Oslo-Ruth were passed mainly in the shack with sandwiches and coffee, so I was quite happy upon the arrival of my husband, Vincent. Then the "holiday" part of the trip to Iceland started and together we visited as much as possible of this enchanting and unusual island with different landscapes from moonlike craters to never-ending glaciers, and the geysers which are very famous and spectacular. The almost 24 hours daylight with only two hours of twilight was, of course, very unusual for us but one gets used to it without sleeping problems.

We do hope all those who had a contact with us from TF-land were as happy and pleased as both of us – the two Ruths! A heartfelt thanks to Vilhy TF3DX, to Jens and Dora and family, and to Oslo-Ruth's husband Tor who designed and prepared our home-made QSL cards.

Welcome New Member

Diane K2DO Sponsored by Marilyn VK3DMS.

Changed Callsign

Patsy KA7MZZ is now W7PAT, and OM John is now W7SIR.

17th ALARA Contest Results

(From Marilyn VK3DMS, Contest Manager)

Aimee FK8FA 473 – Top score overall; Top score DX YL, Top Pacific Islands, Top Pacific Islands ALARA Member.

Bev VK4NBC 348 – Top score VK YL, Top score VK Novice, Top score VK Novice CW (Florence McKenzie Trophy-152 points), Top VK4 ALARA Member.

Gwen VK3DYL	282	– Top VK3 ALARA Member
Judy VK3AGC	161	
Alex ZL1BVK	138	– Top ZL OM
Frank VK2EKY	135	– Top VK OM
Mavis VK3KS	120	
Dot VK2DDB	114	– Top VK2 ALARA Member
Pat VK4PT	110	
Celia ZL1ALK	103	– Top ZL ALARA Member
Bev VK6DE	97	– Top VK6 ALARA Member
Ivor VK3XB	95	
Bev ZL1OS	93	
Christine VK5CTY	90	– Top VK5 ALARA Member
Marilyn VK3DMS	75	Check Log
Poppy VK6YF	71	
Alan VK8AV	70	
Bron VK3DYF	65	
Ted VK4EWR	60	
Brian VK3WYN	50	
Margaret VK4AOE	33	
Maria VK5BMT	31	Check Log
Sue ZL3AHT	28	Check Log
Dawn ZL2AGX	26	Check Log
John VK5KMI	25	
VK5GGA	20	– Top Club station (Girl Guides of SA)
Len VK3ALD	15	

Summary:

VK ALARA Members	13
DX ALARA Members	5
VK OMs	7
DX OMs	1
Club stations	1
Total logs	27
Check logs	4

Again we battled our Contest amid pretty poor conditions; just maybe some day it will all become better! I must congratulate all those who took part. Despite the small scores, everyone seems to have enjoyed the day.

Special mention must be made of Aimee FK8FA, who obviously had better propagation than the rest of us here in VK. That was her good fortune, and she deserves her great win this year. However, last year's winner, Bev VK4NBC, also had a very good score, and won the Florence McKenzie Trophy for the third time. Great work Bev.

Last year's OM winner, Alan VK8AV, unfortunately had problems with thunderstorms (among other things) which shut him down. Those events are not to be argued with! I guess the solar flare was the real culprit over that weekend, also spoiling the fun for the Girl Guides in Adelaide, who again took part. It was great to hear more OMs taking part this time, with special mention of Alex ZL1BVK and Frank VK2EKY, who both achieved good scores.

From Gwen VK3DYL comes a light hearted story. A local OM promised to work the YLs in the Contest, but found himself in a new house with no antennas come Contest Day. Undaunted, he loaded up his Hills rotary clothes hoist and gave out points on various bands! I just wish there was a special award for his originality!

It is always great to catch up with other ALARA members, especially Mavis VK3KS who always works under considerable difficulty. Thanks for the effort, Mavis. See you all again on 7 November for our 18th Contest. **ar**

WICEN News

David Horsfall VK2KFU
PO Box 257, Wahroonga NSW 2076
E-mail: *dave@geac.com.au*
Packet: VK2KFU@VK2KFU.NSW.AUS.OC

No, this column isn't late; it was decided to move it to a different bi-monthly schedule. I still do not have any input from the other WICEN Divisions, so once again this will be a NSW-oriented article (hint).

The Christmas and New Year "silly season", known for bush fires, storms, and the occasional earthquake, etc is now over, with few if any WICEN activations. In the meantime, let us spare a thought for those bush fire fighters who died in the line of duty; as volunteers they were not exactly getting paid to risk their lives...

We in NSW are always looking for ways to publicise ourselves, and a stand at the Hornsby and District Amateur Radio Club's "Open Night" attracted attention from members of the public and some would-be amateurs. Particularly eye-catching were the photographic displays designed by Ron VK2UR. Thanks must also go to Tony VK2TJF for the information sheets produced at short notice. By the time you read this, the annual Central Coast Amateur Radio Club's Field Day will be over, and WICEN always picks up new members here.

Preparations are well under way for a State Wide Exercise in NSW, to be held just before the opening of the John Moyle Memorial Field Day. The idea is to involve all members by giving them a message to pass (somehow) to the Dural command post VK2WIC (which also happens to be the VK2 Divisional broadcast station VK2WI). Afterwards, personnel are encouraged to remain in the field, to partake in the Field Day; perhaps other states could follow suit?

The following appeared in a recent issue of the NSW newsletter, in my President's Column, and is worthy of reproduction here, slightly edited:

"WICEN's future is inextricably linked with the WIA, and we must support each other if amateur radio is to become other than a passing curiosity in the next century. The advent of cellular phones has seen some opportunities taken away from us, and has also removed the "mystique" of world-wide communications. The Internet has also stolen a generation of children away from radio, and it is up to us to show them that we can do for free what they have to pay for. As communicators, we seem to be pretty poor at it...

"There will always be a role for WICEN, since no other service can afford to keep a team of technically-qualified communications people standing by, "just in case". No other service can deploy the range of modes in the field, at short notice, and quickly reconfigure them as circumstances dictate, as we can.

"Australia appears to be unique in relying heavily upon volunteer labour, such as the VRA, the SES and the various bush fire brigades; this concept seems to be unknown elsewhere, and it is to our advantage to promote this wherever possible; all we ask for in return is the use of our bands, and it is the WIA's role (as the only game in town, despite what you may hear from a few) to ensure this...

"Speaking of the bands, I'm going to suggest some heresy, and state that WICEN should not confine itself to the amateur bands; we must be able to show the authorities who rely upon us (perhaps unknowingly) that we are just as comfortable driving a telephone, or a GRN radio, as an amateur transceiver. To insist that we shall do nothing more than the latter will surely consign us, and amateur radio itself, to oblivion.

"The keyword here is "flexibility", and we must be prepared to use whatever means are available to pass that message (which is, after all, our function); if we can employ the amateur bands, then so much the better. For example, it is not well known that WICEN's role in the Thredbo disaster was to run the DVR (Disaster Victim Registration) system in the Sydney Police Centre, and to train police personnel in the use of the system; it's things like this that gain us heaps of "Brownie points" amongst the relevant authorities.

"I have it on good authority that should we be called out to perform a particular function, and we refuse ("but it ain't amateur radio!") we can forget about taking part in more "attractive" events; sometimes, we just have to roll up our sleeves and show that we are prepared to do "grunt" work.

"Support the WIA any way you can (we need each other in order for amateur radio to survive) and be prepared to consider communication means other than your own radio."

Gleefully, I await the brickbats to be thrown at me for expressing the heresies above...

Please send contributions for this column to *dave@geac.com.au*, or alternatively via packet radio to VK2KFU@VK2KFU.NSW.AUS.OC, or snail-mail to PO Box 257, Wahroonga, NSW 2076.

If further information about WICEN (NSW) is required, please contact the acting State Co-ordinator, Alan Whitmore VK2YYJ, on 015-097-217; contact details for other Divisions are requested.

ar

Remember to leave a three second break between overs when using a repeater

AWARDS

John Kelleher VK3DP
– Federal Awards Manager
4 Brook Crescent, Box Hill South, VIC 3128
Phone (03) 9889 8393

I am remiss in that I did not thank the various members, including one DX member, who sent Xmas and New Year greeting cards. I also was chastised for not publishing the RTTY DXCC listing. So here it is:

VK3EBP 210/212
VK2BQS 121/123
VK3AMK 100/102
VK5RY 100/102

These figures were published under CW in the February listings. Just proves that you can't get away with anything.

The Tassie Trout Award

The Central Highlands Amateur Radio Club of Tasmania was formed in 1988. After consultation with the appropriate authorities, VK7KZ and VK7NDO formed this Club, wrote a constitution, and applied for a callsign. The club rules are simple:-

1. The President is always right.
2. If in any doubt, refer to rule 1.
3. Members will fine each other for breaches of rules.
4. You shall NOT use "Q" code on phone.
5. Anything else considered, in the opinion of the President, to be out of order is a fineable offence.

It was suggested that the club run an award, so the "Tassie Trout Award" was launched. This was for "catching" (or working) 14 kg of Trout (members). This was accepted well and soon the Golden Sticker upgrade for working 25 members was launched. The Platinum sticker upgrade for working 50 members followed soon after.

The basic Tassie Trout Award requires you to acquire 14 kg of trout. The President is worth 3 kg, vice-presidents 2 kg, and members 1 kg. Any members that are portable in the Central Highlands while being worked for the basic award are worth 2 kg.

Overseas stations need only work 4 kg to achieve the award. Fees are $AUS 5.00 for VK stations, and $US5.00 for all others. Members gather for a chat every Thursday evening at about 1930 local time, on or near the frequency of 3.585 MHz, and are then available for award contacts until 2000 hrs, when the weekly quiz begins.

Current Office Bearers are President, Bob VK7KZ; Vice Presidents, Bob VK7NBF and Rosanne VK7NAW; Secretary/Treasurer, David VK7NDO; Awards Manager, John VK7JK; and Publicity Officer, Claureen VK3LCM.

Funds for the maintenance of club licence fees are raised by "fines" for using "Q" code on phone or any other misdemeanour thought relevant by other members, as well as the occasional auction held at club gatherings. Fines are notified on air during the annual general meeting. Payment of such fines is by the "honour system" to the Treasurer.

There are currently 103 members on the register from various States, and new members are most welcome. To join, speak to the controller when you tune in next Thursday (*Note to the Publicity Officer – keep me advised annually to achieve regular publication of this Award*).

The New Budapest Award

This Award is issued by the Radioamateur Society of Budapest, MRASZ BSZ. It can be obtained by all licensed radio amateurs and SWLs. The Award Manager is Csaba Gal HG5COK, 1368 Budapest POB 383.

To acquire the New Budapest Award, it is necessary to work and confirm different HA5 or HG5 stations as follows:

HF HA stations and SWLs, 75 different HA5 stations.

EU stations and SWLs, 50 different HA5 stations.

DX stations and SWLs, 25 different HA5 stations.

Satellite Three different HA/HG5 stations.

The same station may be represented only once in your application. Any amateur bands and modes can be used. All contacts are valid from 1 January 1990. The application must be certified by two licensed amateurs, and must be sent with a fee of 10 IRCs to the Award Manager.

Information on the following three awards was sent to me by Zbig VK2EKY.

Maritime Mobile Award

This award is available to all amateurs and SWLs. The rules are easy. Send an application which includes at least seven contacts with /MM stations anywhere in the world. Fees are $US7.00 or 10 IRCs, and should be included with your GCR list to: Piotr Brydak SP5PB, Okolnik 9A m16 00-368 Warszawa Poland.

All Baltic Islands Award

This attractive award is available to any licensed amateur or SWL. Europeans are required to work 20 Baltic Islands, while operators from North America, Africa and Asia require 10. South America and Oceania require five Baltic Islands.

GCR list of all contacts made is required with names if possible. The fees and the Award Manager are identical to the previous award.

Warszawa 2000 Award (700 years of the City of Warszawa)

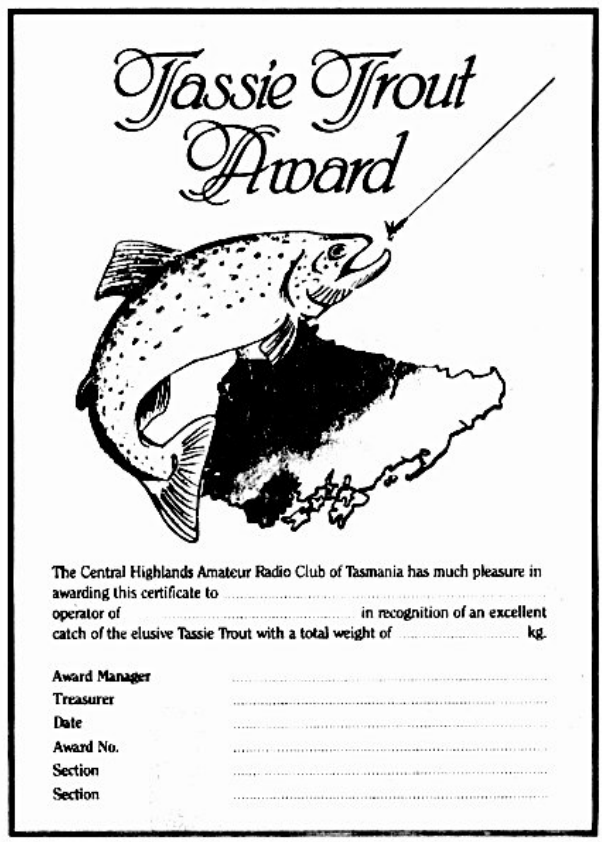
This award is issued to commemorate the 700th anniversary of the City of Warsaw. To achieve this award, 700 points must be collected under the following rules:

Each station from Warsaw, 300 points.

Each station from SP5 District WA, 200 points.

If you find this difficult to achieve, gain points by participating in the annual SPDX contest which takes place on the first weekend of April. Contacts are valid only between 1 January 1997 and 31 December 2003.

The fees payable and the Award Manager are identical to the two previous listed awards. **ar**



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Wide receiver coverage, leading edge features, and Lithium Ion technology, packaged for convenience at a price that will suprise!

VX-1R shown full size

The new VX-1R is one of the world's smallest dualband amateur rigs, sporting a 2m/70cm transceiver with wideband receiver in a case sized just 81 x 47 x 25mm WHD. It has impressive memory and scanning facilities as well as receive coverage of VHF and UHF TV, AM and FM broadcast band, AM aircraft band and other public service frequencies from 76 to 999 MHz*.

Leading-edge technology from the VX-1R's 500mW MOSFET power amplifiers together with the supplied 3.6V 700mA/H high-capacity Lithium Ion battery will provide many hours of superb local communications. Up to 1W output is available for longer range when external DC power is used. Extensive battery-saving features together with the Li-Ion battery's 2-hour recharge system yields long operating times under real-world conditions.

The VX-1R's extensive memory system provides 291 memory channels, most with Alpha-numeric labelling for easy recognition. A Smart Search (tm) system allows you to search a portion of a band you define, then loads any active frequencies into 31 special Smart Search (tm) memories for later inspection (great for finding activity when visiting a new area).

Besides being a fully-featured dual-band amateur transceiver, the VX-1R has extraordinarily wide receiver frequency coverage: you'll also be pleasantly surprised by the great audio on the FM broadcast band. A dual-watch facility is provided - and together with the AM, FM-narrow and FM-wide reception modes - you'll be having fun even when you're not operating on the amateur bands. For selective calling and listening, the VX-1R also includes a CTCSS encoder/decoder and a 104-code Digital Code Squelch (DCS) system as well as a Tone Search facility for both CTCSS and DCS encoded transmissions.

A great range of accessory lines for the VX-1R are available such as speaker/mics, a carry case, as well as a battery holder for 1 x AA alkaline battery which includes an inbuilt voltage step-up converter. Computer programming of the VX-1R is available via the optional ADMS-1D programming kit.

So when Yaesu says "Dick Tracy, we're waiting for your call" you can be sure they have good reason to do so. In fact, call into your Dick Smith Electronics' Hams Shack store for a demo of this fun new rig. Or phone 1300 366 644 for a copy of the Yaesu colour brochure.

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An easy way to go mobile, the new M270 antenna with standard 5/16" thread can be used with existing base/lead assemblies. Constructed on a strong fibreglass rod and covered with long-life polyolefin heatshrink, this 975mm long antenna covers 144 to 148MHz and 430 to 440MHz, with a maximum power rating of 200W.

D 4808

MOBILE ONE **$34.95**

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A high quality ground-independent mobile antenna that's easy to install without drilling holes. Low-angle radiation pattern, slim radiator and efficient coupling system ideal for mobile use. Provides 3dB gain with power rating of 50W continuous (100W intermittent).

D 4206

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LP-1300 Log Periodic Yagi

The Maldol LP-1300 is a Log Periodic Yagi beam antenna designed to provide useful gain across the 100 to 1300MHz range. Ideal for scanner enthusiasts and ham operators needing a directional wide-band antenna. Consists of a 17-element Yagi with a special feed system providing low SWR (less than 2.0:1) across the 100-1300MHz range.

Gain:	6.0dBi to 10.0dBi
Boom length:	1.46m
Suitable mast:	28-60mm diameter
Max wind speed:	40m/sec
Connector:	SO-239

D 4828

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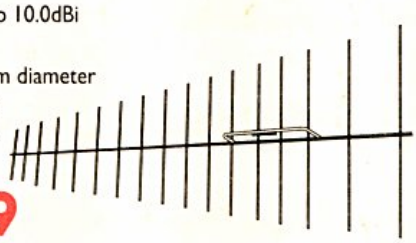

3-15V 25 Amp DC Power Supply

This rugged benchtop power supply is ideal for Ham or CB applications, with current up to 25 amps ICAS at 15V, 20 amp continuous at 13.8V, and lower current at lower voltages. It also has front panel metering, plus high current banana-style and low-current output connections for extra flexibility. An internal heatsink and thermally-switched fan provides cooling without protrusions in the metal case (which measures 320 x 150 x 145mm). Specially modified for more reliable long-term operation, it uses a rugged 50 amp bridge rectifier and trifilar transformer. Also provided is extensive overload protection through dissipation limiting circuitry for the pass transistors, a 30 amp instantaneous current limit, AC mains circuit breaker, a transformer thermal fuse and fused auxiliary secondary winding. D 3800

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Contests

Peter Nesbit VK3APN
Federal Contests Co-ordinator
PO Box 2175, Caulfield Junction, VIC 3161
pnesbit@melbpc.org.au

Contest Calendar March - May 98

Mar 7/8	ARRL DX SSB Contest	(Jan 98)
Mar 8	DARC 10 m Digital Contest	(Feb 98)
Mar 14/15	Commonwealth Contest (CW)	(Feb 98)
Mar 21/22	WIA John Moyle Field Day	(Feb 98)
Mar 21/22	Russian DX Contest	(Feb 98)
Mar 21/22	DARC HF SSTV Contest	(Feb 98)
Mar 21/22	Bermuda Contest	(Feb 98)
Mar 28/29	CQ WPX SSB Contest	(Feb 98)
Apr 4/5	SP DX Contest	
Apr 10/12	JA DX High Band CW	
Apr 11/12	EA DX Contest	
Apr 18/19	Holyland DX Contest	
Apr 25/26	Helvetia DX Contest (Switzerland)	
Apr 25/26	SP RTTY Contest	
May 2/3	ARI DX Contest (CW/SSB/RTTY)	
May 9/10	Sangster Shield Contest	
May 9/10	CQ-M DX Contest	
May 30/31	CQ WPX CW Contest	(Feb 98)

Power Line Noise

As amateurs, we are used to pushing the boundaries of what's possible. It's always a thrill to hear a station coming through on a path which defies the propagation charts, and even better when one is able to work it. In this respect we do remarkably well, given the limits on power and antenna size which we face.

Many years ago, I used to regularly get up early to operate on 40 m, seeing how late I could work DX as the sun continued to rise. Now as most people know, 40 can be very good for an hour or two around sunrise, but at a certain point the attenuation climbs steeply, and within a few minutes it's all but over. One can hear the band closing, as the fading patterns change and the noise takes on its characteristic daytime sound.

In those far away days, my parents' house was in a fairly quiet suburban area and I could often hear DX quite late, until the power line noise set in. Saturday and Sunday mornings would usually see me in the shack, tuning around and calling all manner of stations, ever the optimist (the fact that very few of them ever came back never seemed to faze me).

I discovered that the power line noise, which usually commenced abruptly, seemed to come from the pole outside our house. I found this out one day when my listening was cut short by a loud hash, and I rushed out and banged the power pole. Back in the shack the band was quiet again.

This developed into a routine. Whenever the power line noise started, I would rush out and bang the pole with something heavy, which usually bought me an extra five or ten minutes of listening time. Other times I would grab the hose from the front garden, and hose the insulators. The neighbours must have thought me mad! They were probably right.

For something different, sometimes I would grab the ladder and walk hastily across the roof, trying not to fall through the slates until I got to the front of the house, so I could give the telephone wire a good tug to shake the pole. Over the weeks, that poor wire developed a terrible sag!

I rarely missed a weekend without performing at least one power pole routine. However, I'll never forget the Sunday when, as I was listening to a South American coming through on a rare long path opening, the noise started, completely drowning out the station. This time I decided it was time to put the power pole out of its misery for once and for all, and grabbed the axe. I wasn't going to chop the pole down mind you, just give it such a good shake that the dirt would fall off the insulators and it would be quiet for the next six months.

So there I was, standing in the street at 8.45 on a Sunday morning, viciously whacking the pole with the back of the axe. "Take that" and "there's another one", etc. Whack! Whack! Whack!

Glancing down the street, I noticed an elderly gentleman in his Sunday best walk around the corner, probably on his way to Church. He got several metres into the street, froze, and then slowly backed out of the street before he turned and ran. "What an idiot" I thought, "people like that shouldn't be allowed out" as I continued my pole whacking. Several days later the penny dropped, and I realised he thought *I* was the lunatic, no doubt about to chase after him with the axe!

The thought of it gives me a laugh to this day. I never heard the South American again of course, and shortly afterwards conceded defeat to that wretched power pole. One has to know when to give up.

Contest Dates

The RSGB 7 MHz Contest is normally popular with VKs, as it provides a good run up to the Commonwealth Contest in March. Those who listened around on the appointed weekend, which is the third full weekend of February, were no doubt puzzled at the lack of activity. The reason is that after publishing the date in their yearly contest guide last September, for some reason the RSGB changed the date, but didn't publish the revision until January, which is much too late to be disseminated to overseas societies and published in journals like this. Even the Europeans were caught short, as most of their contest calendars which I found on the Web still showed the old date.

My apologies to those who wondered what happened, and I hope you caught up with the contest the following weekend. My thanks to the sharp eyes of Alan VK8AV for drawing this anomaly to my attention.

End of an Era

And so, to my final bit of news this month. After two terms as Federal Contest Co-ordinator, I've decided it's time to step aside and let someone else take the reins. The task is easy and fulfilling; however, it's time to attend to some other personal projects, which have been on hold for much too long. Consequently, my last column will be for the May issue, which means a replacement person needs to be found soon. Would YOU like to be the next FCC? Expressions of interest are invited.

For information and assistance this month, thanks to VK2BQS, VK8AV, 4Z4KX, G2HLU, G3PJT, G4BUO, HB9DDZ, LA9HW, PA3ELD, SM3OJR, VE2ZP, and PZK. Until next month, good contesting!

73, Peter VK3APN

SP DX Contest (CW and SSB)

1500z Sat to 1500z Sun, 4-5 April

This contest runs on the first full weekend of April, and usually has a good level of European activity. Categories include single operator (single or all band), multi-operator, and SWL. Bands are 160-10 m, and modes CW or SSB. Send RS(T) plus serial number; SPs will send RS(T) plus a two letter province code. Score three points per QSO with each Polish station and obtain the final score by multiplying by the number of Polish provinces worked (max 49). In this contest, multipliers are counted only once, even if worked on more than one band. Mixed mode contacts are not allowed.

SWLs must receive the callsign and number sent by Polish stations, plus the callsign worked. Each SP may be logged only once per band.

Send your log, summary sheet, and multiplier check list postmarked by 30 April to: SPDX Contest Committee, Box 320, 00-950 Warsaw, Poland. Disk logs are welcome (ARRL/ASCII file format).

Polish provinces are: SP1: KO SL SZ; SP2: BY GD EL TO WL; SP3: GO KL KN LE PI PO ZG; SP4: BK LO OL SU; SP5: CI OS PL SE WA; SP6: JG LG OP WB WR; SP7: KI LD PT RA SI SK TG; SP8: BP CH KS LU PR RZ ZA; SP9: BB CZ KA KR NS TA.

Japan DX CW Contest (High Band)

2300z Fri to 2300z Sun, 10-12 April

The object of this contest is to contact as many Japanese stations as possible on 14, 21 and 28 MHz CW. Classes include single operator (single and multi-band), high or low power (100 W); multi-operator (1 Tx); and maritime mobile. Maximum operating period for single operator stations is 30 hours (show rest breaks clearly in log), with rest periods at least one hour long; multi-operator stations full 48 hours. Multi-op stations must remain on a band for ten minutes minimum.

Send RST plus CQ zone number; JAs will send RST plus prefecture number (01 - 50). Score one point per JA QSO on 20 and 15 m, two points on 80 and 10 m, and four points on 160 m. The multiplier equals JA prefectures + Ogasawara Isl (JD1) + Minami-Torishima Isl (JD1) + Okino-Torishima Isl. Send log postmarked by 31 May to: Five-Nine Magazine, Box 59, Kamata, Tokyo 144, Japan. Logs can also be e-mailed. For further information, send an e-mail to *jidx-info@dumpty.nal.go.jp* with the following command in the body of the message: *#get jidxelog.eng*

Have you advised the ACA of your new address?

EA DX Contest (CW and SSB)

1800z Sat to 1800z Sun, 11-12 April

This contest takes place on the second full weekend in April. Use 80-10 m, CW or SSB. Exchange RS(T) + serial No; Spanish stations will add their province code. Score one point per QSO, and multiply by the number of Spanish provinces worked per band (max = 5 x 52). Send your log to: URE Contest and Award Manager, PO Box 220, 28080 Madrid, Spain, to be received by 16 May.

Spanish provinces are: EA1 (AV BU C LE LO LU O OR P PO S SA SG SO VA ZA), EA2 (BI HU NA SS TE VI Z), EA3 (B GE/GI L T), EA4 (BA CC CR CU GU M TO), EA5 (A AB CS MU V), EA6 (PM).

Holyland DX Contest (CW and SSB)

1800z Sat to 1800z Sun, 18-19 April

The object of this contest is to work as many Israeli stations as possible, and runs on the third weekend of April each year. Categories are single and multi-operator all band, and SWL. Bands are 1.8 to 30 MHz. Send RS(T) + QSO number; Israeli stations will send RS(T) + area code. The same station may be contacted on both CW and SSB on each band. Claim two points per QSO on 160/80/40, and one point on 20/15/10. The final score equals total points times total areas, areas counted separately for each band. SWLs should report Israeli stations only, and include time, callsign, station worked, RS(T) + area code, and points.

Forward summary sheet and separate logs for each band, postmarked by 29 May 1998 to: Contest Manager, Israel Amateur Radio Club, Box 17600, Tel Aviv, Israel 61176.

Note: Israeli mobile or portable stations can operate from up to five different areas during the contest. The operation from each area gives that station the status of a different station with another call, thus giving additional contest points and multipliers. To identify the changed areas, such stations will modify their callsigns by adding a number after their prefix, eg 4X4JU will use 4X41JU, 4X42JU... 4X45JU; 4X6JS will use 4X61JS, 4X62JS, etc. Areas are the grid square followed by the administrative region (AK AS AZ BL BS HB HD HF HG HS JN JS KT PT RA RH RM SM TA TK YN YZ ZF).

Helvetia DX CW/SSB Contest

1300z Sat to 1300z Sun, 25-26 April

Work only Swiss stations, CW on 160-10 m and SSB on 80-10 m. You may work a station only once per band, regardless of mode. Score three points per QSO; multiplier is the total number of Swiss cantons worked (max 26 per band). Send log to be received by 12 June to: Niklaus Zinsstag HB9DDZ, Salmendorfli 568, CH-4338 Rheinsulz, Switzerland. Cantons are: AG AI AR BE BL BS FR GE GL GR JU LU NE NW OW SG SH SO SZ TG TI UR VD VS ZG ZH.

SPDX RTTY Contest

1200z Sat to 1200z Sun, 25-26 April

Categories are single operator all band, multi-operator all band, and SWL. Use Baudot on 80-10 m, call CQ SP RVG TEST, and exchange RST + serial. Score two points per QSO with own country, five points with other countries in same continent, and ten points with other continents. Multipliers are the sum of DXCC countries and Polish provinces (max 49, see above list). Send logs postmarked by 25 May to: SPDX RTTY Contest Manager, Box 253, 81-963 Gdynia 1, Poland.

Results of 1997 Canada Day Contest

(call/band/QSOs/mult/score)

VK1FF 40	9	5	500

Results of 1997 SOEC Grid Contest (CW)

(call/QSOs/pts/fields/score)

VK8AV 65	193	34	6562

Results of 1997 PACC Contest

(call/QSOs/mult/score)

VK8AV	78	23	1794
VK2APK	44	18	792
VK4XA	39	11	429
VK4ICU	9	6	54
VK4TT	6	4	24

Results of 1997 SAC DX Contest

On CW, the continental plaques were awarded to VK4EET (CW), and VK2APK (SSB). (QSOs/pts/mult/final score):

CW:

VK4EET	134	294	56	16,464
VK2APK	108	240	53	12,720
VK8AV	114	244	50	12,200
VK4TT	9	9	6	54

SSB:

VK2APK	70	106	39	4,134

Results of 1997 Commonwealth Contest

By Harold G2HLU and Bob G3PJT (edited)

Excellent conditions in the northern hemisphere this year, combined with the special anniversary occasion, DXpedition

stations and six HQ stations were the ingredients for a record Commonwealth Contest. Many participated for the first time, and 74 stations won a Silver or Gold certificate for working 50 or 60 band-call areas respectively. The total of 164 entries was the highest since 1947!

Careful checking was needed to separate the two leaders, Gavin V2/GM0GAV and John VE3EJ, but in the end Gavin's few received errors secured him the Senior Rosebowl. The top VK spot was just held by Barry VK2BJ, against stiff opposition from John VK4EMM.

Compared to 1996, total entries were up by 61%, and participation increased slightly to 715 stations with 421 Gs, 137 VEs, 58 VKs, and 29 ZLs. Once again VKs did well, with 45% of participants sending a log.

Although computer logging is on the increase, hand written and typed logs still accounted for almost 50% of entries. Judging by comments, even some of those using computers are still learning the business!

More information on the results, including details of the bonuses worked by each station, is available on the Web page: *http://ourworld.compuserve.com/homepages/Bob_G3PJT/*

The next Commonwealth Contest takes place this month on 14 and 15 March; see last month's *Amateur Radio* for the rules. *Please note that Hong Kong is now deleted.* Remember that special certificates will be awarded to any station working at least 61 band-call areas.

Results of 1997 Commonwealth Contest

* = certificate

Posn	Call	80	40	20	15	10	Total
Top Ten:							
1	V2/GM0GAV	1086	2231	2834	1895	25	8071
2	VE3EJ	1877	2470	2531	1061	73	8012
3	9G5VJ	650	1468	2529	2150	386	7173
4	VP2EJT	916	2088	2390	1525	155	7074
5	VE2ZP	1222	1726	2308	470	80	5806
6	G4BUO	944	1561	1828	1201	150	5684
7	VK2BJ	771	2179	1685	655	75	5365
8	VK4EMM	511	1936	1976	816	100	5339
9	G0IVZ	848	1518	1799	855	175	5195
10	G3OZF	818	1496	1641	730	125	4810
VK (Open):							
7*	VK2BJ	771	2179	1685	655	75	5365
8*	VK4EMM	511	1936	1976	816	100	5539
12*	VK6VZ	463	1881	1233	902	25	4504
34	VK4ICU	490	741	870	450	75	2626
37*	VK3ZC	481	1201	665	75	-	2422
39	VK6AJ	25	630	1065	570	-	2290
68	VK3MR	-	825	618	-	-	1443
69	VK4AAR	-	523	790	125	-	1438
70	VK2DID	255	636	530	-	-	1421
75	VK3CIM	175	521	600	81	-	1377
80	VK4XW	255	357	481	75	25	1193
81	VK3XB	25	536	589	48	-	1178
86*	VK8HA	-	-	981	-	-	981
90*	VK5HO	235	310	345	-	-	876
91	VK4OD	277	139	355	96	-	867
93	VK3KS	-	405	376	73	-	854
103	VK6RU	-	-	180	215	-	395
108	VK3AMD	-	246	-	-	-	246
VK (Restricted):							
1*	VK2APK	641	1780	773	198	-	3392
9	VK2BQQ	448	948	620	125	50	2191
15*	VK8AV	150	573	636	536	25	1920
20*	VK4SS	275	658	448	167	23	1571
25	VK4TT	75	795	544	-	-	1414
33*	VK3APN	503	513	73	-	-	1089
42	VK3IY	228	405	-	-	-	633
HQ:							
5	VI4WIA (VK4XA)	413	1265	890	412	80	3060

Results of 1997 ANARTS RTTY Contest

Presented by Jim, VK2BQS

World Plaque Winners:

Single Operator:	UN5PR	5,191,870 pts
Multioperator:	OH3NE	5,138,640 pts
SWL:	ONL383	750,100 pts

Single Operator:

(Callsign/Final Score/QSOs/Mult/Continents/VK Bonus)

= World Plaque; * = Continental Winner

UN5PR #	5,191,870	404	165	6	1300
OH2LU *	4,247,844	445	164	6	900
HA2SX	4,216,196	418	142	6	500
K5DJ *	4,037,680	552	122	6	700
DJ3IW	3,750,956	357	146	6	800
DL7VOG	3,244,140	366	135	6	900
VK2KM *	3,126,240	175	78	6	n/a
ON6AA	3,076,150	380	125	6	400
AA7UN	3,007,104	371	88	6	1200
K7WM	2,970,240	349	89	6	1200
VA3MM	2,883,884	434	84	6	500
OH2GI	2,782,268	350	131	6	1400
K0KO	2,731,842	383	103	6	900
IV3FSG	2,624,550	292	105	6	600
EA9JZ *	2,596,260	376	133	5	100
W7TI	2,450,872	322	92	6	2200
YU7YG	2,282,926	334	129	6	400
N1RCT	2,047,634	335	103	6	200
GW4KHQ	2,029,388	279	119	6	200
CE8SFG	* 2,012,120	179	68	5	-
SP1MHV	1.877.954	269	131	6	200
N2DL	1,838,916	383	71	6	300
LU8EKC	1,812,385	177	69	5	100
JH1HRJ	1,665,168	182	61	6	600
I2HWI	1,647,942	255	97	6	300
4X6UO	1,621,920	256	66	6	300
G5LP	1,615,350	266	121	6	-
K4GMH	1,451,656	266	71	6	700
EA5FKI	1,357,372	279	84	6	100
YB5QZ	1,287,588	157	69	4	600
LA7AJ	1,221,558	206	87	6	600
W6/G0AZT	1,186,090	215	73	5	1300
SM4GVR	1,183,600	219	80	6	400
DL5ZB	1,182,460	200	110	6	400
N6GG	1,175,266	168	77	6	400
NH6XM	1.141.370	182	58	5	800
OK2SG	1,123,832	180	102	6	200
W4LC	1,064,540	221	81	6	200
JR5XPG	1,004,704	114	56	6	400
W2JGR/0	998,528	213	76	6	800
K7ON	989,364	227	57	6	300
OZ8RO	973,964	180	66	6	200
JA2BY	849,820	113	59	5	1400
EA2IA	843,696	208	84	6	-
VE6KRR	833,800	213	70	5	800
JL3OXR	766,998	106	53	6	300

ar

Pounding Brass

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To "zero beat" a signal is to determine precisely the exact frequency on which it is transmitted. Unfortunately, a lot of operators today either don't know or don't care to zero beat a station's signal.

When I hear a call from another operator I try to make sure that my transmitted signal is on exactly the same frequency as the station calling. When you tune into other stations on your receiver the pitch of the audio output goes up and down as you tune back and forth across the band with your VFO dial.

I usually settle for maximum signal strength on the received frequency, or a pitch I find easy to listen to. I am now ready to transmit on the frequency I am receiving (more on this later).

Two problems I am faced with, at this stage, are:

1. I don't have a narrow band filter; and
2. My receiver is not selective enough.

You may have noticed that you can hear the received signal at varying pitch over a range of 2 to 3 kHz, or even more. If the other station has a very selective filter in his receiver and I transmit 1 kHz or so away from where he is listening, he will not hear me when I transmit in reply to his call.

What I have to do is "zero beat" his signal and transmit on the exact frequency. Let's look at an example.

A station, to which I want to reply, is calling on 3.530 MHz. The first thing I do is zero beat his signal, tuning with the VFO until the audio pitch decreases in frequency and disappears at around 3.534 MHz. The audio response is now at 0 Hz although I might be able to detect or hear a slight rise and fall in the level of background noise. I have now zero beat the station calling and can now transmit on the exact frequency of 3.534.000 MHz.

At this stage you might be asking how can I still copy the incoming signal, if I cannot hear it?

The answer to this is "Offset". I use either the Clarifier or RIT (Receiver Incremental Tuning) control to alter the received frequency to a comfortable pitch without altering the transmitting frequency of 3.534.000 MHz. This is known as the receiver's offset.

In the CW mode, most transceivers don't transmit on the exact received frequency; they normally have an offset built in, putting the transmitted signal close to zero beat when receiving the CW at an audio tone of a pre-determined frequency. You can consult the transceiver operating manual regarding the correct amount of offset to use, and an explanation of the RIT control.

All that is required of you is some practice to confirm what you have read, and to have some fun in the process. **ar**

How's DX?

Stephen Pall VK2PS
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Following my comments in last month's column about the discontinuance of Morse code on maritime vessels as from 1 February 1999, my attention was drawn to an article written by Frederick O Maia W5YI in the August 1997 issue of *CQ Amateur Radio* magazine under the heading, "Morse Code QRTs on the High Seas". Here are a few excerpts from that excellent article.

"The London-based International Maritime Organisation (IMO) was formed in 1959. One of its goals is to enhance safety of large ships at sea through improved radio communication technology. The current maritime law requires that all passenger and cargo ships of more than 1600 gross tonnage be equipped with radio telegraph equipment and qualified operators.

"In 1972 the IMO began a study of satellite communications. On the 9th of November 1988 at the conclusion of a two-week London Conference, the IMO notified the World that GMDSS (Global Marine Distress and Safety System) had been given the go-ahead by world shipping leaders. Radio Officers with Morse code knowledge will still be needed on older vessels until the 1st of February 1999. Radio Officers are already no longer required on ships that were constructed after the 1st of February 1995, since they must comply with all GMDSS requirements. Licensed GMDSS operators will be required on all large ships but they need not have Morse knowledge. The US Coast Guard stopped monitoring the 500 kHz frequency in 1995."

I recommend the full article to you for further study in connection with the Morse code requirement in the amateur service, a subject placed on the agenda of the World Radio Conference to be held in 2001. There is only one question which still puzzles me. There are many small vessels under the 1600 gross tonnage plying their trade with cargo and passengers between Pacific Island ports. What kind of distress communication equipment do they use when they get into difficult situations, bearing in mind that some owners of these ships are small companies or individuals who might not want to spend too much money on expensive GMDSS equipment? If you know the answer, please send me a note.

Fjord County – K8VIR/ZL4

Ed K8VIR/ZL4 made many New Zealand County hunters happy when he showed up on 8 January on the ANZA Net (14164 kHz). Ed was in Fjord County, one of the uninhabited counties of the Southern Alps of New Zealand, hence no amateur activity there at all.

In one of the photos which he sent me, he can be seen with his portable equipment with the vertical antenna on his back-pack. Ed said that he will be in and out of Fjord County during February, March and April doing a research assignment. He will try to operate as often as possible. *"Watch 14164 kHz at 0500 UTC"*, he says, *"and 14265 and/or 21300 at other times"*. The QSL cards for his Fjord activity are being printed. His New Zealand address is: Ed Hartz, C/o PO Box 9, Te Anau, New Zealand.

Libya – 5A21PA

Libya, once one of the most wanted countries on the DXCC ladder, is becoming popular as a DX destination. In the last half-a year or so, this is the third expedition to that country, not counting the activity of the handful of local operators and the short individual foreign operators visits in-between.

From 2 March to approximately 8 March, a Belgian group of three amateurs, one of them a YL, will tackle the expected dog-pile. Tiny ON4CAT (YL), Patrick ON4APS and Frank ON4CEL are the participants. The

expedition's home page on the Web makes interesting reading. The group openly says that they are looking for sponsors and donations for the project, *"since Libya is totally dependent on DXpeditions to provide them with amateur material"*. The aim is to provide Ali and Abubaker with a portable PC each.

The group intends to have a reunion with the German 5A2A group and the Austrian 5A28 group, as well as the operators of the Libyan Club station at the Friedrichshafen German Hamfest at the end of June.

The interesting callsign (hopefully approved by the ITU) stands for *"celebration of the declaration of peoples authority and the birth of the first Jamahiriya which takes place on the 2nd of March each year"*.

QSLing is via ON4APS via the Bureau, or direct with return postage (and with a possible 'small donation') to: Piesen Patrick ON4APS, Koolkerkesteenweg 141, B-8000, Brugge, Belgium.

DXCC – To Pay or Not to Pay?

New Rules

Getting that rare QSL card costs you time and money. However, to get the coveted DXCC award certificate will cost you more money in the future.

In this age of economic rationalism, the cost of services has to be recovered from the customer. In the January 1998 issue of *QST*, the ARRL DXCC Desk has announced new fees for the DXCC Award certificate. Here are some of the more interesting details.

*Initial application each year for a member of the ARRL, $10. Additional application, member $20.

* Initial application for a foreign non-member is $20. Additional application for a foreign non-member is $30.

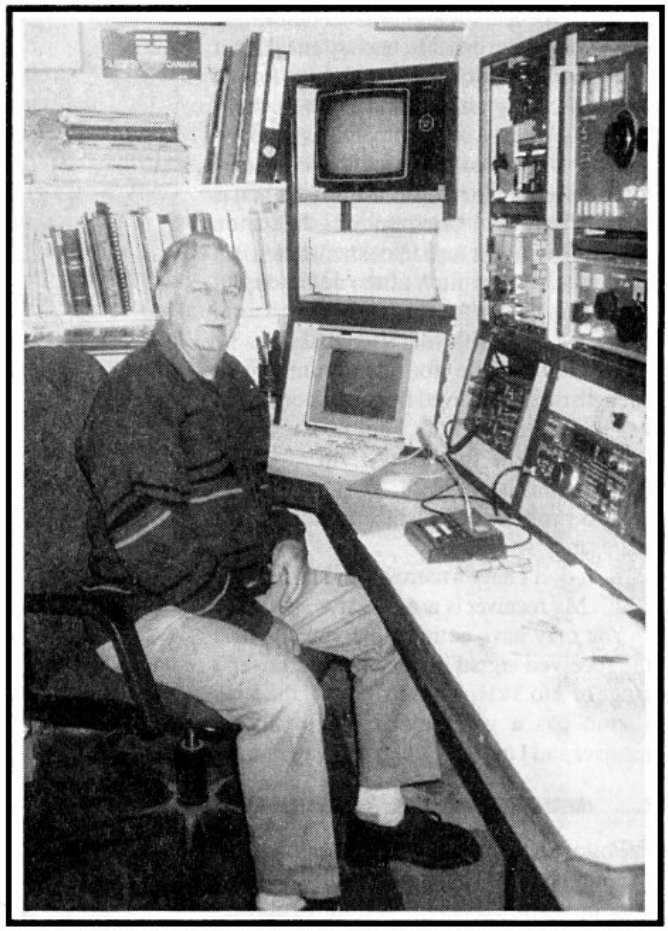
The above fees refer to 120 QSLs for the first application, and to 100 QSLs for additional application. Each card over these limits costs an additional 15 cents. There is no fee now for the standard certificate and pin. Honour Roll and 5 Band DXCC plaques cost $30, plus shipping. Applicants must supply return postage and an SASE for any cards or information requests.

All the above fees started on 1 January 1998. The dollar figures are in US currency.

However, some of the above charges have been modified in the new rules for the DXCC award issued by the ARRL on 17 January 1998. The new rules are contained in an 11 page document of A4 size which is too long to publish here. I reproduce now the ARRL summary of the rules which was published in ARRL Bulletin #8.

"Approved by the Board were rules changes for the DXCC program, that had been recommended by the DXCC 2000 Committee. Under the new criteria, no countries currently on the DXCC list will be removed. In the future, countries will be referred to as entities. A political entity will be added to the DXCC list if it meets any one of the three criteria: it is a UN member state; it has an ITU prefix block assigned; or it has a separate IARU member society. The new criteria also replaces all DXCC measurements, including physical separation distances, with metric system figures roughly equivalent to the former distances. While the 57 entities on the deleted list will remain, no new countries will be added to the deleted list in the future. Deleted entities simply will be removed. In addition, the new rules specify a minimum 'island' size of 100 metres measured in a straight line. The DXCC field checking program will remain in place. The effective date of the changes will be announced later this year. The DXCC 2000 Committee was discharged with the Board's thanks."

In the meantime, the new date of implementation of the new rules was decided to be 31 March 1998.



John VK2EJM at the control panel of his impressive station.

Antarctic Stations

After the summer personnel changeover at various Antarctic bases, here is a list of the stations which are currently active or plan to be active until next December:

* CE9SAC, Adelaide Island, AN-001, between 2230-0200 UTC.

* 8J1RL, Showa Base, Ongul Island, AN-015. QSL via JARL.

* KC4AAD, Siple Dome Station, 0001-0400 UTC on 14273 kHz, QSL via K4MZU.

* KC4AAA, Amundsen-Scott Base, AN-016.

* CE3RAC/CE9, Patriot Hills, 2200-0100 UTC on 14180 kHz.

* R1ANZ, Mirny Base, QSL via UW1ZC.

* R1ANL – Saam Novolazarevskaya Base, Princess Astrid coast. QSL via UA6AH.

* VU2JBK and VU2RAY, 2200-0100 UTC around 14180 kHz. From Maitri base on Queen Maud Land. QSL via VU2DVC.

* CE9AP, Cesar on South Shetlands, AN-010, 2230-0200 UTC between 14180 and 14210 kHz.

* ZX0ECT, Alberto on Commandante Ferraz Base, South Shetland.

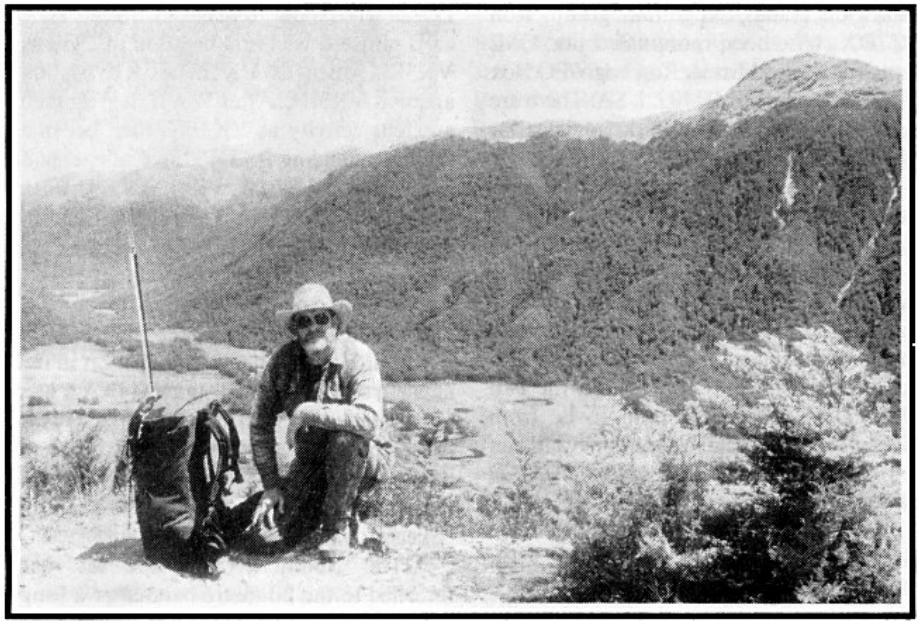
* R1ANF on 40, 20 and 15 metres from Bellinghausen Base on South Shetlands.

Future DX Activity

* Daniel F6ARU is now working in Jordan and is active around 0600 UTC on 14180 kHz with the callsign JY9RU. QSL via the Bureau to his home call, or direct to PO Box 154, Maan, 7111 Jordan.

* John TT8JFC is back in Chad for another 11 months. His work contract finishes around the end of November 1998. QSL via John F Cantrell WB4MBU, PO Box 187, Lochloosa, FL-32662 USA. Please note the QSL address shown in February '98 *Amateur Radio* giving the QSL manager as Russell W Madison is incorrect. My apologies.

* Salt 9M6ST is a relatively new amateur on the bands and lives on Labuan Island, OC-133. He will be active soon on 40 metres with his mini-beam. His mailing address is: PO



Ed K8VIR/ZL4 in Fjord County in New Zealand, with the Grebe River and Heath mountains beyond.

Box 80712, Labuan Island, 87011, East Malaysia.

* Charlie K4VUD will be on the air from Nepal as 9N1UD and intends to be active as time permits. QSL via Charles Harpole K4VUD, 3100 N Hwy 426, Geneva, FL-32732-9761, USA.

* The members of the South Sandwich Island Group and The Midway Kure DX Foundation have visited Palmyra Island KH5 in February, Kingman Reef KH5K early in March, and they will be active from Baker Island KH1 (OC-089) between 5 and 12 March. QSL via AC7DX.

* A number of stations will be active from Aruba during February and March, P4OK, P4/I2UIY, P40V, and P49V.

* Carlos YN1CB was reported to be active on Saturdays on 14215 kHz at 2000 UTC. QSL via YN1CB, PO Box 3733, Managua, Nicaragua.

* The Finnish group who was supposed to be active from Guatemala from 18 January to 5 February, had to change plans due to "unforeseen circumstances." They were reported from El Salvador as YS1X.

* Manfred DJ7RJ will be in Monaco from 28 February to 12 March with the callsign 3A/DJ7RJ mainly on CW. QSL via the home call.

* If you missed the recent Maldive operations by the 8Q7AA group, tune in until 11 March to work Hans DL8NBE as 8Q7BV and Rolf HB9DIF as 8Q7BV from Dhiffushi Island in the South Ari Atoll in the Maldives. QSL via the home calls, Bureau only.

* Bob N6BFM is on the air from Kuwait as 9K2ZZ for about one year. QSL via W8CNL.

* Mike F5RLE is active until 9 March from Burkina Faso as XT2DM. QSL to home call.

* Pagalu Island, 3C0. Four to six operators will be there at the beginning of March, mostly on 160, 80 and 40 metres.

* Fernando is active again from Angola as D2BB until the end of 1998. QSL via W3HNK.

* Advance notice! Brandon Island Archipelago 3B7 will be activated by a group of Swiss amateurs from 5 to 17 May. More details later.

* John KA3DBN/VP2EBN is now in Africa until about 19 March. He intends to be active from Botswana (A22), Lesotho (7P), Swaziland (3DAO), Zimbabwe (Z2), and Mozambique (C9). QSL via the Bureau to K3BEQ.

* Jon 3DA0CA is now active on 160 metres, 1.827 MHz, between 2100 and 2200 UTC listening for Oceania and Japan.

* Vladimir RU6FP is active, mostly on CW, from Nepal as 9N1FP for the next four months on 20 and 40 metres only. QSL via RU6FP Vladimir Zakharov, Kulakova 27/2 – 116, Stavropol, 355044, Russia.

Interesting QSOs and QSL Information

* CN8TW – 14 MHz – SSB – 0900 – Dec. QSL to CBA (Call Book Address): Ali Sekkat, 7O3 Ave de Fes, California 20 150, Casablanca, Morocco.

* 5T5TY – Ghaly – 14 MHz – SSB – 2130 – Dec. QSL via William M Loeschmann N5FTR, 717 Milton, Angleton, TX 77515, USA.

* FG5FC – 14 MHz – SSB – 2000 – Dec. QSL via Hubert Loubere F6DZU, 289 Ave de Caupos, F-40600, Biscarosse, France.

* FT5XN – Hellos – 14 MHz – CW – 0315 – Jan. QSL via Gerard Ribes F6PEN, 16 rue Viollet, Le Duc, Toulouse, 31100, France.

* OA463QV – Cesar – 14164 – SSB – 0529 – Jan. QSL via Cesar Armando Aguirre Mesinas OA4QV, Box 957, Lima 18, Peru.

* J28BU – 24 MHz – CW – 1000 – Dec. QSL via Bruno DeSailly F5OYM, 4 Rue d'Aurelle de Paladine, F-44000, Nantes, France.

* VP8CTR – Roman – 14204 – SSB – 1113 – Dec. QSL via Dominik Weiel DL5EBE, Reinshagener Str 99, D-42857, Remscheid, Germany.

* BY5SY – Lin – 21252 – SSB – 1052. QSL via PO Box 239, Fuzhou City, China.

* 3A2MD – Laura – 14181 – SSB – 1332 – Dec. QSL via Marcelle Laura Martinez, 73 Bd, Jardin Exotique, MC-98000, Monaco, Europe.

* FT5ZG – Eric – 14278 – SSB – 1526 – Dec. QSL via F5RQQ, (new address) Jean Marc Vigillier, 4 Impasse Des Lys, 63800 Cournon-d'Auvergne, France.

* YJ0AIO – Holger – 7006 – CW – Dec. QSL via Fritz Bergner DL1VRO, Sterndamm 199, D-12378, Berlin, Germany,

* C31MO – Michel – 21210 – SSB – 1023 – Dec. QSL via Miguel de Diego Aznar, C/o Tossaleti Vinyals 6, Xalet la Balma, Santa Coloma, Andorra.

From Here There and Everywhere

* I am sorry to report that Hans VK2AOU is a silent key. He was not a DXer, but Hans had a 67 year connection with amateur radio both in Germany and Australia. He was involved with the production of ceramic capacitors, for which he held a patent, with Plessey Ducon, and developed the VK2AOU tri-band amateur antenna, the forerunner of some German, Japanese and US antennas.

* Had an interesting QSO with Herik FR5DX. We discussed the activity from Tromelin Island. Herik said it is extremely hard to get permission to land on Tromelin, Gloriuoso, Europa or Juan de Nova Islands. Permission is granted only to people on Government business, like meteorology, or you have to be a scientist carrying out some research project. The situation is similar on Crozet, Amsterdam and Kerguelen Islands. Henry FR5ZQ/T was active in January from Tromelin, but it was not easy to catch him as heavy pile ups and poor propagation did not help.

* Jerry Branston AA6BB/7 was a well known QSL manager who became a silent key in late August 1997. His logbooks and QSL chores were taken over by the South Sandwich Island Expedition group. Ron AC7DX has been nominated as QSL manager. His address is: Ron Lago, PO Box 25426, Eugene, OR-97402, USA. There are more than 70 DX calls on the register for which there are logs going back to 1974.

* QSLs for contacts made on 15-17 December with 3V8BB (Tunisia) should go via F6FMX.

* Some Israeli stations are celebrating the 50th anniversary of the Israeli Amateur Radio Club (IARC) by using pioneer amateurs callsigns who are now silent keys. For example, Arie 4X6UO used the call 4X50FB/SK. The celebration is from January to April inclusive and an award can be obtained for working a total of 50 QSO points.

* Doug VK0YQS is active from Macquarie Island but only on 6 metres. He has a limited licence. Some activity under his callsign on 40 metres in the second part of January was the work of a pirate.

* CT98AXS celebrating EXPO 98 was very loud on 14254 kHz at 1623 UTC in Sydney.

* David 9V1RH/VK3QV advises me that the Singapore QSL Bureau works very well. The address is PO Box 2728, Singapore, 904726.

* By now, everybody who worked Tom as VK0TS, or as VK0ANARE, should have received his QSL card. Tom was very busy for several weeks filling in the confirmation cards.

* David 9V1RH has confirmed the details about the Amateur Radio Club of Vietnam in January *Amateur Radio* as being correct.

* Activity from Minari Torishima (formerly Marcus Island) is very limited these days. It is a 'closed island', meaning that only those who are on official Japanese Government business have landing rights. There is a small Japanese weather station on the island with 10-15 personnel who might or might not have amateur licences.

* In the October '97 issue of *Amateur Radio* I mentioned that I heard VM4AA working on the band and I said that the callsign was officially allocated to "Macka" in Runaway Bay, QLD. Later I received a number of protest phone calls from a variety of VK amateurs stating that I was wrong. In December I had a QSO with VM4AA and I now have received his QSL card which tells an interesting story. The operator of this special call is a retired RAAF Squadron Leader who is now 78 years old. Macka, as he calls himself, was first licensed in 1932 as VK3FM, then as VK2IM, VK2VM and again as VK3FX. After WWII, he resumed amateur activity as VK3FX, then became G2AA (attending RAF Radio College) and back again as VK3FX, VK4PY, VK9AR (in PNG), then P29AR/mm, and VK4DU. In 1983 he was awarded the special call VM4AAA as Wing Commander DFC, AFM, AE by the then Minister of Communications, Michael Duffy, in recognition of extended participation in the amateur service. The callsign VM4AAA was replaced recently with the call VM4AA. This is the only Australian amateur callsign with the VM prefix. The 1998 WIA Call Book still lists him as VM4AAA under the heading "Special callsign".

* The "Southern Cross DX Net" has returned to the 20 metre band after a long absence. Alan VK4AAR announced that the net will be operating for the time being only on Fridays, Saturdays, Sundays and Mondays with a variety of net controllers at 1100 UTC on 14255 kHz.

* Wally from the Russian Mirny station will go home during March. He has been at Mirny since July 1996.

* There is now a new incoming Canadian QSL Bureau for the VE9 and VY2 prefix callsigns. The address is: VE9-VY2 QSL Bureau, Box 12-255, 1633 Mountain Road, Moncton, NB, E1G 1A5, Canada.

* QSLs to the recent 8Q7AA Maldives expedition should be sent either by the bureau via N7TX, or direct to Steve Thompson, 119 E Jasmine St, Mesa, Arizona, 8 5201-1811, USA.

* According to Fred Laun K3ZO, Trinidad and Tobago recently allowed no-code licensees to use all HF bands. The no-code licensees can be distinguished by the use of the 9Z4 prefix.

QSLs Received

TT5JFC (2 w – WA4ZJB); V51SG (5 w – S Graf, PO Box 116, Tsumeb, Namibia, Africa); EP2SMH (5 m – Mohsen Hosseini, PO Box 17665-441, Tehran, Iran); AP2KSD (3 m – PO Box 700, Rawalpindi, Pakistan); 7Z5OO (4 w – N2AU); VS97SAR (6 m – XRW).

Thank You

Many thanks to my amateur friends whose assistance is a great help in compiling these notes. Special thanks to: VK2EFY, VK2KFU, VK2LEE, VK2TJF, VK2XH, VK2ZRH, VK4AAR, VM4AA, VK5WO, VK0TS, 9V1RH, and the publications *CQ Amateur Radio* magazine, *QRZ DX*, *The DX News Sheet* and the *425 DX News*.

ar

Amateur radio – helping our community

Spotlight on SWLing

Robin L Harwood VK7RH
5 Helen Street, Newstead TAS 7250
(03) 6344 2324
e-mail: *robroy@tassie.net.au*
VK7RH@VK7BBS#LTN.TAS.AUS.OC

FFL Closes

Yet another major maritime HF communications station has finally ceased operation. FFL, St Lys Radio, which has been operational for over 40 years, closed on 16 January. Many will remember their distinctive voice mirror tape which included a piano accordion playing a local tune. The French station was the main HF maritime communication link for France and its territories. The final day was very emotional and was extensively covered in the French electronic media. Users of FFL were directed to either 3A2 in Monaco or OST, Ostende Radio, in Belgium. Ironically, the senders for 3A2 are in French territory close to the tiny Mediterranean principality.

The next HF maritime station slated for closure is PCH, Schevingen Radio, in Holland. This is one of the oldest continuous maritime communication stations, commencing prior to the First World War. PCH will close sometime in the next twelve months, but no exact date has yet been given.

Globe Wireless

Globe Wireless, an American maritime operator, is convinced that HF communications are still commercially viable. They have been buying or leasing many of the old HF marine communications stations world-wide and remotely operating from their base in California, on both analogue and digital modes including a modified form of Clover. The stations are located as follows:

KFS – Palo Alto, California USA
KEJ – Hawaii, USA
WLC – Rogers City, Michigan USA
WNU– Slidell, Louisiana USA
VCT – Tors Cove, Newfoundland CANADA
SAB – Gothenburg Sweden
ZLA – North Island of New Zealand
ZSC – Cape Town, South Africa
VIP – Perth, Australia
A9M – Bahrain.

They welcome signal reports from the SWL community via either the Post Office at: Globe Wireless, 1 Meyn Road, Half Moon Bay, CA 94037 (attn: Michael Beck); or the Internet at: *qsl@globewireless.com*

Four additional stations have been added to their network. LFI (Norway), LSD86 (Argentina), 8PO (Barbados), and KHF (Guam) are online and fully operational. Their frequency list is too large to include here but visit their Website at *http://www.globewireless.com*

Retail Short-wave Outlets

One of my interests in the hobby is listening to utility stations, which are scattered throughout the entire HF spectrum. One of the useful aids I have of keeping track with happenings is the World Utility Network a "listserv" from Grove, a well-known short-wave retailer. The list has been indispensable to me, and it suddenly went down on 30 January without any prior warning.

Bob Grove has been a staunch advocate for the monitoring hobby and has come out against recent attempts by the US Congress to restrict the public's right to pursue the hobby. Legislation now prohibits new scanners and receivers from including the cell-phone allocations around 800 MHz; apparently digital networks aren't sufficiently advanced compared to here in Australia.

Also at the end of January, another major retail short-wave outlet, the EEB, closed its retail wing to concentrate exclusively on commercial and government sales. Grove, however, is still in business but has sold its Internet site, which will mean that many "listservs" who have been using it for free will either have to pay commercial rates or find another host.

Radio New Zealand International Future Uncertain

Yet another international broadcaster faces an uncertain future with Radio New Zealand International now under scrutiny from the government in Wellington. Several domestic networks were privatised and public broadcasting slashed with commercial broadcasting now in a dominant position.

Many Pacific Island nations rely on RNZI to provide news and sports coverage into the region. Vocal protests have not only come from there, as RNZI has built up quite a following amongst short-wave enthusiasts around the globe.

Well, that is all for this month. Keep listening and good monitoring.

ar

International Amateur Radio Union Monitoring Service (IARUMS) – Intruder Watch

Gordon Loveday VK4KAL
Federal Intruder Watch Co-Ordinator
Freepost No 4 Rubyvale QLD 4702
VK4KAL@VK4UN-1
Tel: 07 4985 4168

Region 3 News

(from February 1998 issue of Region 3 MS News)

Improved band conditions have once again brought in a few new intruders. CB type transmissions in the bottom part of 10 metres require positive ID. They are thought to emanate from service vehicles, ie taxis, but we need to further refine these reports.

Broadcast stations also feature a lot lately and once again a positive identification is quite essential before we can make representation to the offending stations. Commercial broadcasters are required to give the station ID on the hour.

It is gratifying to hear some intruders being vigorously challenged by amateurs.

Intruders, especially those appearing in the exclusive portions of our bands, have no right to be there. Those who are prepared to take the time to make communication difficult for intruders are to be congratulated and encouraged. Keep up the good work.

Following a discussion the Region 3 Co-ordinator had with the International Co-ordinator, ZL1BAD, reporters are urged to concentrate on intruders found in the exclusive portion of the bands. Radio regulations empower us to do something about these pests. Intruders found elsewhere are more difficult to get rid of. The Indonesian problem does not appear to have increased and this is good news for the 40 m operators.

Thanks is due to all who sent in reports; they have helped in removing some broadcast stations, eg VOA, CNR and BBC were all removed from our bands. Remember, we require accurate frequency measurements which can be passed on to engineering staff at the offending stations.

January Summary

(Ui means unidentified)

Freq	Date	UTC	Mode	Details
3.534	230198	2028	A3A	UiBC, Very Unstab*/- 500 Hz
3.540	0201	1305	A3E	R Korea F/M news reading
3.560	1101	1105	mxd	UiBC, Asian net, mny freq m/f, usb
3.614	0501	2020	A1A	GKY1 . . .Back agn
3.630	0201	2120>>	1K12GL?	Possibly PACTOR net??
7.000	0231	1215	A3J	UiAsian nets> 7.019, non amateur
7.005	1701	1229	J3E/U	UiBC, de 7.038 non amateur
7.070	1001	1550	A3E	UiBC, poss IRAN area
7.085	1001	1540	A3E	V08ME, Asmara domestic service
7.0874	1201	0930	F1B	UiVFT, blocked freq 8 hrs
7.095	1101	1645	A3A	Jakarta, same as 9.565 MHz
7.105	2001	0920	-	UiJAM, 7095> 7,110, 1900 close
10.123	1401	1052	A3J	UiBC, music/news, 3 freq mixd
10.138	1001	1222	A3J/L	Ui Asian net, non amateur
14.125	0801	0738	F1B	UiVFT, 250 Hz, 144bd, tfc & idle
14.125	1001	1235	F1B	UiVFT, 425 Hz, 50bd, 100 wpm/14.001
14.2115	3101	0000	F1B	RDL, 850 Hz, 100bd, Smolensk, CIS
14.240	2001	1100	A3A	BC China, m/f news, H 2/7.120
14.250	2601	1150	A3A	VOA
28.890	2301	1100	A3E	V Distorted, sum AM/F3, spur?

I have purposely omitted R7B and B9W observations. These are available if required, but much time is wasted on the whole, for modes of dubious value. The average amateur has not got the gear to decode these modes. Anyone desirous of a printout of these modes, please contact me. **ar**

ARDF – Amateur Radio Direction Finding

Ron Graham VK4BRG
PO Box 323 Sarina QLD 4737
E-mail: *rongraham@magnet.com.au*
Packet: VK4BRG @
VK4BRG.#CQ.QLD.AUS.OC

Mention was made in the October column regarding the Friendship Amateur Radio Society (FARS) and the possibility of forming an Australian Group to become an Affiliated Member.

Since then, they have forwarded to me a copy of their Charter which Wally VK4DO has printed out in the form of a nice looking booklet. Some copies have been forwarded to Clubs and Groups, etc where we think there may be some interest.

Ian VK3DID has contacted me pointing out that there should not be a problem regarding a following of keen CW operators, which is great to hear. Should you have a definite interest in becoming involved, either in the ARDF, CW, or social spheres, it would be good to hear from you. This way we may obtain sufficient numbers to form a "core group" and get into some serious discussion regarding the above.

As I will be absent for a number of weeks, and in order to hear about "The Melbourne Fox Hunting Group", the remainder of this column is handed over to some members of that Group. Mark VK3JMD, his wife Sue VK3LSL, and Jack VK3WWW have kindly offered to assist.

Incidentally, a few XYLs have taken an interest in ARDF due to their OMs involvement. Sue was "talked" into competing at the 1996 Townsville Region 3 event and was "hooked". Two other e-mail acquaintances, one in the US (WB6BYU) and the other in New Zealand (ZL2TT, whose XYL is ZL2GT) have had their XYLs become involved. Is there a message here?

Over to the Melbourne Group, and many thanks to them.

Ron VK4BRG

Melbourne Fox Hunting

The Melbourne Fox Hunting group is involved in a variety of events throughout the year including the monthly Friday night foxhunts, Balloon Hunts, ARDF, Hamventions, the Victorian Championships, and the yearly trek to Mt Gambier for the Australian Foxhunting Championships. The column this month will be devoted to the local monthly night foxhunts and how the sport has developed over the years.

A Bit of History

The origins of Melbourne foxhunting are a little unclear but we believe it started after WW2. From the correspondence we have received, several names seem to feature prominently in the history.

One of these is Ian Bryce VK3BRY who was the developer of the first whoopee sniffer. The whoopee mode has featured in most sniffer designs since and is considered the best type of S meter for sniffing. Ian also had an attachment which enabled use of the car's radio. Ewen Templeton VK3OW remembers Ian's Triumph car. Ewen was driving it one night on the Tullamarine freeway at about 150 km/h and Ian said to him, *"I think the fox is further away than I thought so can we go a bit faster"*! Of course this speed is never achieved these days!!

Another two names which pop up quite regularly are Gil Sones VK3AUI and Kevin Phillips VK3AUQ. Greg Williams VK3VT writes: *"The first pick in the roof I saw was Kevin Phillips who drove an Anglia rally vehicle. Evidently Gil (the beam swinger) complained of the weather one night so Kevin grabbed the pick and punched a hole in the roof. Unfortunately, it was in the wrong place so he just went again and made another. This method made life easy for Gil and meant that there was no need for roof racks!*

"Mark VK3PI had a yellow Escort and also put a hole in the roof for easy beam swinging; I'm not sure he used a pick. Mark

also removed the front seat and set up a rack full of equipment; a little like some of our current teams!"

Another of the group to put a hole in his roof was Lionel VK3NM, who was warned by the police that having an overhanging antenna didn't look safe. With this in mind, Lionel used a 50 mm hole saw to make the hole in the centre of the roof. When the hole was not required it was sealed with a bath plug which was surplus to his needs.

It's funny how people remember things differently. Greg talks of the concept of yelling at other members of his team but not really meaning it – well not much anyway! David Beard remembers things differently.

Fifteen years ago there was time for a "cuppa" between hunts and no-one got worked up or impatient. Waiting around for the next hunt never seemed to be much of an issue. It was more of a social occasion and people used the opportunity to reflect on the previous hunt.

Mark Harrison VK3BYY recalls Gil and Kevin's relaxed approach to foxhunting, ie drive as close as you can to the fox, then stand back and watch the other hounds get tangled in blackberries if it looked like the fox was a bit far from the car.

Mark Diggins VK3JMD recalls when he started foxhunting that the fox was often in the car. If the Tx was hidden, though, it wasn't far away. A few years back there was regularly 12 or 13 teams each night. Around this time we had four TV crews come along to get the low down on the sport. The average at present is about seven or eight teams.

Foxhunting 90's Style

A typical night consists of about five to eight hunts. These hunts may be individual or continuous and usually require a run to find the Tx. All hunts are on 2 m but some may also include an additional band (10 m, 6 m or 70 cm) that had been nominated the month before.

Scoring is like golf with the lowest score of the night being the winner. On a single hunt, the first team to find the fox gives their callsign and the fox for the night gives that team a score of zero and starts the clock. Each following team to find the fox scores one point for each minute, or part thereof, they arrive after the first team. This is done until all teams find the fox, or 10 minutes have elapsed, at which point the fox calls the hunt over and gives out the meeting spot on the liaison frequency.

At the end of the night the hounds meet for supper and the scores for the night are totalled. The team with the lowest score is declared the winner and receives four points towards the yearly title. Second gets three points, third gets two points, and all other teams who competed for the night get one point. The fox for the night also gets three points.

Today's equipment has come a long way from the converter and car radio combination, to the sophisticated equipment many teams use today. Cathode ray tubes were popular for a while but are being replaced with laptops. Street directories are being replaced by CD ROMS with GPSs and S meters are having Digital Signal Processing added to them.

Receivers vary from hand-helds, to scanners, to HF rigs with down converters, and some homebrew rigs as well. Antennas are also quite varied, but the most favoured is the three element Yagi designed by Greg VK3VT which was published in the October 1988 issue of *Amateur Radio*.

Sniffers also vary in age from the Ian Bryce VK3BRY amplified crystal set to the programmable, microprocessor controlled, auto ranging design of Bruce VK3TJN and David Beard. The most widely used, though, would have to be the Ian Stirling VK3MZ design which is now sold by Ron VK4BRG. Some of the other DF equipment used includes Doppler scanners and Watson Watt receivers.

There is a Website for the Melbourne foxhunting group run by Andrew VK3KIR which can be found at *http://www.ozemail.com.au/~amac/fox/fox.html*. There is also a mail reflector that is used for information on hunts and technical details. To subscribe to this list send an e-mail to *majordomo@planet.net.au* with the words *subscribe melb-fox* in the body of the message.

Well, that about sums up the Melbourne monthly hunts. We hope you enjoyed the VK3 perspective.

Mark VK3JMD, Sue VK3LSL and Jack VK3WWW

Stop Press

A new Victorian ARDF group is starting up – watch this column for more information.

The Victorian Foxhunting Championships will be held on 4 April this year – contact Ewen VK3OW for details.

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National co-ordinator
Graham Ratcliff VK5AGR
E-mail: vk5agr@amsat.org
AMSAT Australia net:
Control station VK5AGR
Bulletin normally commences at 1000 UTC, or 0900 UTC on Sunday evening depending on daylight saving and propagation. Check-ins commence 15 minutes prior to the bulletin.
Frequencies (again depending on propagation conditions):
Primary 7.068 MHz (usually during summer).
Secondary 3.685 MHz (usually during winter).
Frequencies +/- QRM.
AMSAT Australia newsletter and software service
The newsletter is published monthly by Graham VK5AGR. Subscription is $30 for Australia, $35 for New Zealand and $40 for other countries by AIR MAIL. It is payable to AMSAT Australia addressed as follows:
AMSAT Australia
GPO Box 2141
Adelaide SA 5001
Keplerian Elements
Current keps are available from the Internet by accessing the AMSAT FTP site, *ftp.amsat.org* and following the sub-directories to "KEPS".

AMSAT

Bill Magnusson VK3JT
RMB 1627, Milawa VIC 3678
e-mail: *vk3jt@amsat.org*

Phase 3D Launch Update

Karl Meinzer DJ4ZC made the following announcement recently via ANS.

On 20 January, Phase 3D Project Leader and AMSAT-DL President, Dr Karl Meinzer DJ4ZC, met with ESA officials in Paris to discuss the possible launch of the Phase 3D satellite on the third test flight of the Ariane 5 launch vehicle, AR-503. Dr Meinzer gave a short presentation on AMSAT, its background and the history of co-operation it has enjoyed with ARIANE for many years. He then outlined the development history of Phase 3D and expressed a strong desire for a launch on AR-503.

The ESA officials indicated willingness to consider a launch on AR-503 but made no commitments. They stated that they are also

investigating the possibility of placing another payload on the mission that would preclude launching Phase 3D. Nevertheless, ESA did agree to make an initial study of the configuration that would be associated with Phase 3D, were it to be launched on AR-503 along with several other payloads.

They also agreed to investigate other possible launch opportunities, including ARIANE 4s. Another meeting is scheduled for the end of February, at which time it is hoped that more definite information will be available.

Dr Meinzer said on returning to Marburg following the 20 January meeting, *"ESA is making bona-fide efforts to identify a launch for us. I think we stand a good chance."* Dr Meinzer and AMSAT-NA officials agreed that our job now is to get Phase 3D completed and tested, so that it will be ready to go if ESA gives the 'green light'. AMSAT-NA Executive Vice President, Keith Baker KB1SF, likened this to going to the airport to 'stand by' in order to get on a fully booked flight. *"That strategy often pays off"*, he added.

AMSAT-NA HF Net

With the general improvement of HF propagation conditions accompanying the rise in the new sunspot cycle, many satellite operators will want to begin listening again to this net. Here are some details from the AMSAT News Service. This net meets on or about 14.282 MHz at 1800 UTC for the 'pre-net warm-up' followed by the ANS Bulletin Session at 1900 UTC.

A test will be carried out on 15 metres on the old frequency of 21.280 MHz. Depending upon the success of this experiment, the 15 metre AMSAT Net may be re-activated on a regular basis. It may pay to keep an eye on that frequency as well.

MIR Update

At the time of writing there is no sign of any voice or packet activity from MIR. The last I heard was that the packet gear was ready to be switched on as soon as the new TNC parameters were loaded. This would be done when the crew were able to spare some time from their busy schedule.

AO-10 Activity

A number of VK stations have reported good but variable conditions on this satellite. AO-10's signals appear to be improving and can be quite strong, even at apogee. There is even a suggestion afloat that AO-10 may have switched itself to the high gain antennas. There is no hard evidence for this yet and it is difficult to see how this would happen, but then strange things can happen at AO-10's stage of life.

AO-10's apogee has moved into the northern hemisphere so operating conditions will become more difficult for us in the south as time goes on. Get in and make the most of things while they last. It will be about three years before AO-10 will return to the south and who knows what its condition will be by then.

PacSat News

UO-22, KO-23 and KO-25 have been providing excellent service. KO-23 has been restricted to only one uplink frequency for some time and only a complete reset by the Korean control station will fix this problem. Most people will not have noticed it and I have only seen the upload 'House Full' sign once in the past few months.

UO-22 continues to carry large amounts of Satgate packet radio traffic and the recent period of activity from the frozen continent seems to have come to an end with the ending of the southern summer period of activity.

Andre VK0MAP has just closed down his station at the time of writing. Unfortunately, his stay coincided with the Australian school holiday period so his offer to answer questions on his environment for students was not taken up by many in our part of the world.

The Future of Mode A

KO-23 carried this message from AMSAT-UK recently. Please give it your consideration:

From time to time there appear messages, papers, pleas, etc saying:

1. There is a need for Mode-A satellites for new satellite operators to train on, as well as for those amateurs who prefer analogue rather than digital operations; and,

2. The present supply of Mode-A satellites is fast decreasing with the demise of RS-10/11, problems commanding RS-12/13, battery troubles with RS-15, and the non-availability of RS-16. No Mode-A spacecraft has been produced by a Western group for the past 20 years (OSCAR-8 in 1978).

AMSAT-UK are giving some consideration to this state of affairs but, before we go further, we need to determine whether a new Mode-A package would be wanted, be used or be supported. In other words do you, the satellite operators, want it to happen? Is it worth someone's time and effort to design, produce, and launch? How many people would use a new Mode-A spacecraft?

It would be pointless to spend several hundred thousand dollars if it only attracted a few hundred users (so the cost is 1000 dollars per user). Would YOU use it? This several hundred thousand dollars doesn't just appear magically, the money has to be raised from you, the satellite operators.

Would you give your own money to a group who promised to develop and launch a Mode-A transponder?

The message called for a response by end of February but such an important question would bear answering anyway. If you have strong feelings about this proposition please send your reply to:

Packet: G3RWL @ GB7HSN
E-Mail: *g3rwl@amsat.org*
Satellite: OSCARs 16/19/22/23/25

The survey is being conducted by Richard Limebear G3RWL, Communications Officer, AMSAT-UK.

South Pole Monthly Climatological Summary for January 1998

This message appeared on KO-23 from Andre VK0MAP shortly before he departed the South Pole Station. Note the remarks on wind direction! Some data has been removed for brevity.

TEMPERATURE:
AVG TEMP..... -27.8(C)/-18.0(F)
DEPARTURE FROM NORMAL..... + 0.3(C)/+ 0.5(F)
MAX TEMP.-20.9 (C)/- 5.6 (F) ON DAY 9
MIN TEMP..-39.2 (C)/- 38.6 (F) ON DAY 28

SKY COVER:
AVG CLOUD COVER (10ths)....08
DAYS CLEAR..... 02
DAYS PARTLY CLOUDY..... 04
DAYS CLOUDY..... 25

WIND:
AVG WIND SPEED... 8.8 MPH OR 7.6 KTS.
PREVAILING WIND DIRECTION (GRID) NORTH OR 360 DEGREES.
MAX WIND..... 24 MPH OR 21 KTS ON DAY 08
MAX WIND DIRECTION..... GRID NORTH.
AVG VECTORED WIND... 008 DEGREES AT 6.4 KNOTS.

STATION PRESSURE:
AVG PRESSURE..... 687.8 MBS OR 20.311 IN. HG.
DEPARTURE FROM NORMAL..... – 2.3 MBS OR -0.068 IN. HG.
HIGHEST PRESSURE..... 699.2 MBS OR 20.647 IN. HG. ON DAY 14

LOWEST PRESSURE..... 681.1 MBS OR 20.113 IN. HG. ON DAY 24

SUNSHINE:

SUNSET..... 20 MARCH 1997

AVERAGE HOURS/DAY..... 15.3

PERCENT OF POSSIBLE..... 64%

SNOWFALL..... TRACE; AVG NET CHANGE AT SNOW STAKES +1.494 INCHES.

VISIBILITY... 5 DAY(S) OF VSBY 1/4 MILE OR LESS.

BALLOON FLIGHT DATA:

NUMBER OF SOUNDINGS FOR THE MONTH... 62

AVG HEIGHT OF SOUNDINGS.... 16.5 MBS OR 31148 METERS ABOVE MSL.

HIGHEST SOUNDING.....4.2 MBS OR 38069 METERS ABOVE MSL. ON THE DAY 27 /00Z SOUNDING.

RECORDS:

Day 30 – The highest average wind speed of 14.0 kts/16.1 mph, broke the previous record of 12.0 kts/13.9 mph set back in 1958. January 1998 is marked as the cloudiest January on record. There were 25 cloudy days, breaking the previous record of 19 cloudy days set in 1971.

Congratulations go to Andre and others who have recently given us all some interesting new satellite stations to work from a most forbidding location at the centre of the frozen continent.

ar

VHF/UHF An Expanding World

Eric Jamieson VK5LP

PO Box 169, Meningie SA 5264

Fax: 08 8575 1777

Packet: VK5LP@VK5WI.#ADL.#SA.AUS.OC

E-mail: vk5lp@ozemail.com.au

All times are UTC

Beacons

A message from **Don VK6HK** states that the VK6RPH beacons on 432.460 and 1296.460 MHz are out of action from 27/1/98, for maintenance. The 50.066 and 144.460 MHz beacons continue to operate.

Wally VK6KZ says that the Busselton beacons on 144, 432 and 1296 MHz were turned off on 21 January, after operating for nearly 15 years. Due to corrosion, the tower carrying the antennas has been condemned and will be removed. It is unclear whether the replacement tower will be able to carry new antennas.

The WA VHF Group which provided these beacons plans to add Cape Leeuwin to its beacon network and if possible use the Busselton site for beacons on 1296 MHz up.

VHF Reflectors

The use of reflectors comprised of e-mail messages has certainly escalated in recent times. The VK-VHF reflector, for one, is very popular for the quick dissemination of news regarding various VHF contacts and other relevant information. The *UKSMG Internet Six News* has been a great source of 50 MHz information.

Of course, other matters are aired and discussed. At present, various amateurs are having their say on the use of mobile phones to set up contacts during Field Day Contests with, as always, some for, some against.

The old perennial of points scored for contacts in the Ross Hull and other contests is again being aired, particularly as it applies to six metres and for contacts in the spectrum above 2.3 GHz. Most of it is well thought-out and reasonable, but it is more in the realm of the Contest Manager than these columns – I can only give a limited view.

As always, occasionally undesirable views are publicly aired in relation to certain amateurs, with comments best left off the reflector and sent directly to the person/s concerned, with a CC to anyone else who should be notified, for whatever reason. But that will always happen where there is a wide-ranging forum, although at times I think some people would be wise to have second thoughts about the contents of their e-mails; I certainly would not like my name appended to some of the things I have read in e-mails!

In the light of a few recent comments, apparently seen as undesirable, originating in VK3 and appearing on the VK-VHF reflector and channelled to *Internet Six News*, **Geoff GJ4ICD** has decided enough is enough and has withdrawn the *UKSMG Internet Six News* bulletin. It doesn't paint a very good image of VK to the world's amateurs. I am saddened that Geoff believes this action is necessary, but thank him for the great service he has rendered to 50 MHz during the past three years.

It has always been my policy that this column will not become embroiled in issues which may be detrimental to the image of amateur radio. Hence the rare situation which has caused the above paragraph to be written.

Also, it is not that I am disinterested, but there is little space for recording the views of parties on many individual subjects, which is a pity, in some ways, but unless adequate coverage can be given, the intentions of the particular writer may be misconstrued. However, I like to be party to such discussions and suggestions and thank those who keep me informed. I refer here to Ross Hull Contest rules, scoring tables, mobile phone use and other related issues.

I have an "archived" directory with sub-directories storing masses of information retrieved from e-mails and other letters received over the years, covering a wide range of subjects. People may be surprised at what I have preserved as useful reference material, updated almost on a daily basis!

Corrections

In my January 1998 column, in my references to five metres, I incorrectly listed the South African station as ZS6RO. It should read ZS6HS. Bert ZS6HS advised me by e-mail of the need for correction.

First VK to HB9 QSO should read: VK8ZLX to HB9SJV on 15/02/92 at 1115.

Antarctica

It has been done again. Congratulations to **Peter PY5CC** in GG54re, who worked **LU1ZC** in FC97qb on 14/1 at 2150. Peter kindly answered my e-mail with these details: *"I started hearing CX stations and then LU stations from Buenos Aires area with 5x9+40 dB signals at 2000. The propagation moved to the south and then I worked LU9AEA/x in the southern part of Argentina, in Patagonia area, FE60 Grid, with a strong signal from his mobile station.*

"I tried to connect to the Packet Cluster to find where LU1ZC was, and found him on 14.178 MHz working LU and PY stations. I invited him to QSY to 50.105, a clear frequency, and copied him 5x1/5x2 on SSB. He copied me 5x9. I used an FT620B + 1 kW Dentron MLA2500 + 9 el M2 two wavelength Yagi. Antarctica now gives me seven continents worked, with 151 countries confirmed on 50 MHz. My only contact with VK was to VK7IK in QE37 during Cycle 22."

A further Antarctic contact was made to LU1ZC by PY2XB at 2120 on 25/1. PY5CC also worked LU1ZC again about that time on CW. The distance between PY5CC and LU1ZC is about 4222 km.

[VK0AQ was worked in November 1993 for a world first Antarctic six metre QSO by VK3OT, VK3LK and VK5NC. VK3OT was the first to contact seven continents on 50 MHz SSB. In 1995 VK0IX Casey in Antarctica was worked in VK1/VK2/VK3/VK5 by about 50 stations. Best DX to VK0 is around 4800 km.]

Warning of RADAR

Steve VK3OT/KL7 sent the following: "*Early warning. **Anchorage (Alaska) Daily News** on Jan 14 1998 page B3, reported that scientists from the Alaskan University intend to expand the current ANC RADAR (49.635 MHz) in conjunction with the John Hopkins University, to erect a 20 by 50 foot high antenna on Kodiak Island, to add a northern arm to the Super DARN International System of Radars to map auroral events between 60 and 200 miles above the earth. DARN is DUAL AU Radar Network.*

"The radars are remotely operated and continuous duty and will have six sites in Finland, Canada and Alaska, supplemented by additional sites in Kurguelen Island, Antarctica four sites, and Tasmania, Australia. Also in British Columbia at King Salmon. They are strong and over S9 on 49.635 at 50 miles in the beam pattern. All antennas can be steered to 16 different directions on an arc of 90 degrees."

I'm sure the Channel 0 operators will welcome them with open arms! The frequency should fit very nicely alongside one of the Channel 0 stereo outputs!

Six Metres

Throughout January, **Mike ZL3TIC** consistently reported American Samoa TV video on 55.250 and sound on 59.750 MHz at S9, also other strong video signals around 49.750 MHz. On 7/1 at 0055 he worked YJ8UU 5x9. On 9/1 at 0015 David ZL4TBN advised him that Australian pagers on 148.183 MHz were S9. Mike called many times on 144.100 MHz but no answers. At the time he said that six metres was dead and nothing on 57, 69 or 86 MHz, but strong FM broadcast stations were on 100.9, 101.7 (Hobart), 103.3 and 105.7 MHz but the signals were very distorted. On 14/1 between 0446 and 0506 ZL3TIC worked JA1, 2, 4 and 7.

A newcomer to my columns is **Bernard Terry VK4KAC,** from Nambour. He sent log details for six metres. They have been summarised as follows: 29/11 YJ8UU; 7/12 VK3s CNX, AZY, XDR, KTO, HQ, AFW. 8/12 YJ8UU, VK7RAE/b. 15/12: VK2FV, YJ8UU, VK3SIX. 16/12 VK3YDE, repeaters on 53.975, 53.550, 53.575. 23/12 VKs 3ANP, 3DUQ, 3AZY, 3FGN, 7JR, 2BHO, 6RPH/b, 6YU, ZLs 2KT, 2WNB, 3SIX. 30/12 JA8QX. 1/1 VK4JH. 2/1 ZLTV 50.750. 8/1 VK3YDE. Many of the contacts were made in the morning between 2000 and 0100.

First US F2 contacts of Cycle 23

Last month I gave an outline of contacts made during the F2 opening to the US. **Emil Pocock W3EP** in *The World Above 50 MHz* in *QST* gives a more complete picture as follows, covering 31/12 and 1/1. Times when known in brackets.

ZL2TPY: K6QXY (2342), K5LLL (0027), K5IUA (0028), W5UWB (0039), K5AAW, W5VY, N5BBO, N5TSP, K5WN (to 0041).

ZL3AAU: K5IUA (0034), W5UWB (0033).

ZL3ADT: K5IUA (0027), W5UWB (0033).

ZL3NW: K6QXY (2346), K6SIX (0033), K5IUA (0038), W5UWB (0041), K5LLL (0043).

ZL3TIC: W5UWB? (0045), K5IUA (0048), W5VY (0048), W7CI (0049), W5EU (0056), W6JKV/5? (0057).

ZL4KB: W5VY (0109).

VK2BA: K5IUA (0017), KI5GF.

In relation to the US opening, **Steve VK3OT/KL** supplies the following additional information: "*WA6BYA said that ZL2TPY heard a large pileup of W5s and W4s on an XE2 station. He was forced to call WA6BYA who called a W4, who then worked ZL2TPY.*

"A W0 in North Dakota working W7s lost his first ZL QSO when he failed to respond to ZL2TPY trying to break in on his QSO. He was 5x9 in ZL2. Likewise, many W5s missed ZL as they tried to work the XE2.

"Most KL7s use and monitor 50.125 and there is no or little activity on 50.110 MHz."

By the way, Steve VK3OT/KL sent me a photograph of his thermometer which was registering -32 degrees C. Quite cool I should imagine!

JA1VOK Retires

Hatsuo Yoshida JA1VOK retired from writing *World VHF News* in the Japanese magazine *Five Nine,* effective with the December issue. He had been writing this column since October, 1987. He continues his informative VHF news from around the world in *V*UHF DX Topics,* which he has written for the Japanese *Mobil Ham* magazine since January 1989. A good portion of the column is in English, making it accessible to many VHFers around the world. ... **W3EP** and ***QST***.

Using 50.200 MHz

David VK2BA writes: "*It concerns me that there are numerous VKs who are not aware of the new 6 M band-plan and the 50.200 MHz calling frequency, continuing to call CQ on 50.110 looking for local (VK) DX. It would assist all operators if the word can be passed on to them that they will now do better calling on 50.200. As I observe it, the same stations are heard consistently on 50.110 and they QSY only a small amount and talk to each other regularly. Everyone else has gone to 50.200 and is working up the band from 50.150 to at least 50.280 MHz.*

*"Those hovering around 50.110 seem unaware of the activity up the band. I am finding stations every day that are unaware of the new arrangements and are happy to be informed. Remember that **every** operator will benefit by having a clear international DX segment when it comes their turn to latch onto something exotic. What is the hang-up about moving up the band a little to where the activity is now?*"

Edge of the Outback

Norm McMillan VK2XCI is an active operator from Mount Hope QF27wd, which is about 150 km south of Cobar. He refers to being 'The Edge of the Outback', e-mail *njmcmillan@bigpond.com* .

Norm participated in the recent VHF Field Day but, due to the hot conditions and many thunderstorms, he managed seven two metre contacts only. He reports: "*I'm currently running an FT480R followed by a Communications Concepts amp giving about 75 watts and a VK5 pre-amp to a 13 element W Wulf beam. This is on a five metre aluminium mast mounted 10 metres up the old head-frame at the (abandoned) New Mount Hope Copper Mine and about 220 metres asl.*

"If you want a sched I can usually manage early morning...say pre-dawn to 0830 local time, any day of the week, weather and domestic circumstances permitting."

Two Metres and Above

Scott Watson VK4JSR reports a two metre Es opening between VK4 and VK3 on 14/1 from 0820 to 0830. VK4s involved included VK2FZ/4 and VK4JSR. A number of VK3s were worked by VK2FZ/4, and VK3TDV worked by VK4JSR at S9.

The **Ron VK3AFW** report: "*After poor conditions for the last week, 2 and 70 again open this morning 15/1 to Adelaide. VK5AKK 5x9 on 2, 5x4 on 70. He worked Des VK3CY at 2105 and myself at around 2140 plus several others.*"

Ron lists 400 km plus tropo contacts:

17/1: 2147 144.12 VK2TWR 5x6; 2149 432.15 VK2TWR 5x3; 2228 144.12 VK5AKK 5x3, 432.15 VK5AKK 5x2. VK7XR 1200-1300 VK3s, VK5NY, VK5AKK. 18/1: 1115 144.12 VK5AKK 5x4, 432.15 VK5AKK 5x1; 2208 144.18 VK2TWR 5x5; 2209 432.18 VK2TWR 5x3.

Aircraft enhancement contacts:

16/1: 2100-2200 1296 VK3DEM to VK1BG; VK3CY to VK2FLR.

17/1: 2155-2205 144.200 VK1DO 5x6, VK1BG 5x3, 432.150 VK1BG 5x1.

20/1: 2108 worked Richard VK2ERF at

Bungonia, 80 km north of Canberra. Signals were 5x6 and the band opening lasted about 4 minutes. 2145: worked Phil VK5AKK in Adelaide at 5x3 on 144.

Bob ZL3TY said good tropo conditions prevailed on 17/1. At 0110 148 MHz pagers in up to S9, nothing on 6 m Es; 0157 strong packet on 147.575, logged packets from VK2EHQ Kilnura, VK2AMW Wollongong, VK2XGJ Dapto and VK2XTH. Called on 144.1, no takers. Signals stayed up for two hours.

From **Doug VK4OE:** "*On 30/12 there were contacts between VK4 and VK3 on 144 MHz Es. What was interesting this time was the 'stable patchiness' of it. The foot print at each end seemed to be well defined, and limited to relatively small parts of each state, at least as far as propagation between Brisbane and Melbourne was concerned.*

"*I (in Brisbane) worked only four stations, mostly west of Melbourne, while stations north of Brisbane (VK4IC and VK2FZ/4) worked significantly more VK3s mainly in the greater Melbourne area. At the same time, David VK2BA in Dorrigo, NSW, was able to work a couple of VK5s, obviously using the same patch or bubble of ionisation that we were using, but no other stations.*"

Tropo DX from Gordon VK2ZAB

17/1: 144 MHz SSB between 2108 and 2144: VK2BBF to ZLs 2VAL, 2TAL, 2TE, 1AKJ and 3TY; VK2ZAB to ZLs 2TAL, 2VAL and 2TE. Signals 5x1 to 5x6.

All on 18/1: 0030 to 0209 ZL1AVZ to VK2s BQJ, DXE, BBF, TZ, APG, FLR, ZAB. 0421 to 0516 ZL1AVO to VK2s BBF, TZ and DXE. Signals from 5x2 to 5x9. 432 MHz SSB 0047 to 0211: ZL1AVZ to VK2s BBF, BQJ and ZAB. Signals 5x4 to 5x7. 1296 MHz SSB: 0037 ZL1AVZ to VK2BQJ 5x5, 0235 ZL1AVZ to VK2ZAB 5x5.

Rick Kowalewski VK6XLR at Exmouth, reported 1100+ km SSB QSOs with Wally VK6KZ on 19/1 from 1415-1525 on 144.120 5x9, and at 1450-1456 on 432.120 5x3 with a homebrew eggbeater antenna at his QTH! On 20/1 1330-1430 VK6RPH/b 144.459 MHz.

Wally VK6KZ said that the distance to Exmouth is 1133 km. "*I alerted David VK6AOM in Buntine that the 19/1 contact was on, but David could not hear any sign of Rick's signal on 144 or 432. Buntine is 240 km at 18 degrees from here. It would have been an overland path so his results reinforce importance of the nature of the land/sea interface.*

"*I went south from 25/12 to 31/12. Many contacts on 144 MHz, very few on 432 MHz and nil heard on 1296 MHz and on 10 GHz. Looked frequently for the VK5VF 1296 and 10 GHz beacons, and Trevor Niven VK5NC went out several times and fired his TWT at me – but no joy. Looks like the central pressure may not have been high enough and the whole system was very elongated. Best 144 DX was to VK3TMP/p at Kilcunda approximately 100 km SE of Melbourne.*

"*Interesting observations by people over east about the comparisons of the Albany and Esperance beacons. The reports seem to indicate that if one is audible so is the other with the stronger one alternating between the two. In my case the Esperance beacon seemed to fall away when the path across the Bight on 144 MHz was good. Karl Hennig VK6XW, the beacon keeper at Albany, would appreciate reports of the value of the beacon. He pays personally for the power for the beacon and the Southern Electronics Group is grateful to Trevor Niven VK5NC and others who have paid for the licence.*

"*From Jurien Bay, during the Field Day on 10/1, contacts were had on 50, 144, 432 and 1296 MHz with Perth stations (approx 200 km) and 10 GHz to Geraldton as well as one on FM with VK6AFA 323 km south.*

"*The Perth 10 GHz beacon was audible at 5x9+ for at least seven hours prior to departure on Sunday 11/1. The Busselton and Perth beacons on 144, 432 and 1296 were audible over the 24 hour period with the 1296 MHz one from Busselton (374 km) being paralytic for much of the time. The usual conditions for such good propagation were present – namely the trailing edge of a north-south trough.*"

John VK3KWA sent the following two metre observations, by packet:

28/12: 2316 VK2BA-ZL3IU, also heard ZL1AKW.
0319 VK3BRZ-VK4LE.

30/12: 2050 VK5RSE S6 here.
2105 VK5DK-VK6WG, VK6KZ-VK5DK, VK3AFW.
2110 VK3UM-VK5PO, VK5EN.
2120 VK5EN, VK5AKK.
2136 VK3CY-VK6KZ.
2147 VK6WG.

31/12: 1020 VK6KZ-VK3TMP.
VK5RSE up to S8 all evening.
Nothing heard here from VK5VF or other beacons.
1335 VK6AS heard working someone called Steve.

01/01: 1120 144 and 432: VK7XR, VK7DC, VK7RAE/bm S9+20.
1296 to VK7XR, audible but no two-way.

South Africa on 70 MHz

The South African Telecommunications Regulatory Authority has assigned 70.000 to 70.0185 MHz to the South African Radio League (SARL) on a secondary basis for propagation studies, according to a recent announcement from SARL. SARL is now accepting proposals from South African amateurs for operating 70 MHz beacons. It is not clear whether this will eventually lead to further privileges on the band. ... **W3EP** and ***QST.***

Microwaves

Alan VK3XPD reports that Rob VK3DEM and Roger VK3XRS are now operational on 10 GHz. He had a 250 km QSO with them on 9/1. Andrew VK7XR and Brenton VK7JB are progressing slowly with their 10 GHz units.

From **Wally VK6KZ:** "*On Saturday, 10 January 1998, Neil Sandford VK6BHT/p at Separation Point near Geraldton worked Walter Howse VK6KZ/p at Point Louise near Green Head (north of Perth) over a 143.1 km sea path on 24 GHz SSB. Conditions were not conducive to good propagation on that band with the temperature and humidity at each end of the path being 22 degrees Celsius and 98%. Reports of 3/1 each way on SSB were exchanged along with serial numbers for the Ross Hull/Field Day contests. There was severe QSB and maintenance of the five minute cycles described previously (Neil the even five minutes and Wally the odd five minutes) was vital to the contact.*

"*Signals from VK6BHT/p were initially heard at 1124 (19.24 local just after sunset) and the contact was completed between 1310 and 1323. Both stations were using about 20 mW to 570 mm diameter dishes (the path on 10 GHz was very solid). This contact will be claimed as a new Australian distance record, exceeding the previous one of 120 km. Attempts prior to this contact from Jurien Bay (a 172 km path) were unsuccessful on 24 GHz and also unsuccessful the following morning again from Jurien despite strong signals on 10 GHz.*

"*The end of an era. Amateur radio station VK6BHT has closed down. Neil flew out on Sunday, 18 January to find a new QTH in NSW. I worked him for the last time on 10 GHz on Monday 12/1 to give us our 20th home-to-home contact and 91st on 10 GHz. He will be missed!*"

During the Field Day of 10-11/1, **Doug VK4OE** said: "*There were three stations operating on 2403 MHz, each with about four watts transmitter output and low noise receiving pre-amplifiers. The Brisbane VHF Group operated VK4IF/p at Mt Mee, about 30 km north west of Brisbane, Adrian VK2FZ/4 operated from his residence at Maleny 70 km north of Brisbane, and I operated from a high hill in the Herries Range near Stanthorpe about 150 km south west of Brisbane.*

"*During the Field Day period, regular*

contacts were had on many occasions between each of us. Two years ago I had one very weak contact from my Stanthorpe site to Adrian's location (establishing the still-current Queensland distance record of 224.8 km for this band), using four watts at Adrian's end and one watt at the bottom of the coax at my end. This year I had my properly functioning mast-head box with four watts of power and a DJ9BV kit LNA in the receive path, with everything right at the feed-point of a pair of 45 element loop Yagis. Most times the contacts were reliable at approximately 200 and 260 km range, over obstructed land paths (worse to VK4IF/P)."

On 25 October, **Roy Enmery G3FYX** and **Steve Davie G4KNZ,** made a 65 km contact on 47 GHz from portable sites, for a new United Kingdom distance record for the band. Both stations used 100 mW Gunn diode transmitters and receive mixers with small dish antennas. Initial contacts were made on 24 GHz, just to align the antennas! ... ***W3EP*** and ***QST.***

Closure

There has had to be considerable pruning of notes this month to fit in with space limitations. Please keep sending information and let me do the pruning!

Closing with two thoughts for the month:

1. The mark of a true executive is usually illegible, and

2. When indifferent, the eye takes still photographs; when interested, movies.

73 from The Voice by the Lake

ar

Silent Keys

Due to space demands obituaries should be no longer than 200 words.

The WIA regrets to announce the recent passing of:-

H F (Hans) RUCKERT	VK2AOU
L O'CONNELL	VK2BFP
F K (Frederick Keith) TAPLEY	VK5FT
T A (Thomas A) ALLEN	VK7AL

Hans Fritz Ruckert VK2AOU

It is with great regret that I announce the passing of Hans Fritz Ruckert VK2AOU who died suddenly on 6 January 1998 in Sydney. He was 83 years old.

Hans was born in Posen in West Prussia, now Poznan in Poland. His interest in electronics goes back to his high-school years. He gave a talk to the class on radio, his physics teacher borrowed his books on electronics, and instead of his final physics exam, he wrote a 40 page paper on short wave receivers.

In 1936, after his compulsory army service, he passed his amateur radio receivers operators exam. After some practical work he studied at the Berlin Technical University at the electrical engineering faculty. Because he refused to join the SA, a paramilitary Nazi organisation, he was declared "politically unreliable" and barred from further university studies.

During a temporary job with the German electronic company Telefunken in 1939, he exhibited a 12 valve receiver, which he built himself, at the Berlin Radio and TV Fair.

At the outbreak of the war, he was immediately called up, served in a signals platoon, and was wounded in 1941. Afterwards he was permitted to continue his university studies. Later on he was transferred to the Technical Academy of the German Air Force in Berlin.

His radio amateur call after the war was DL1EZ. He was in regular contact with a Sydney radio amateur named Maurie Brown, who arranged his immigration to Australia via the Australian Ministry for Industrial Development. Hans left Germany with his wife Ilse in June 1951, aged 36, and travelled to Australia.

From 1951 to 1980 he worked for Ducon Condenser, later Plessey Ducon. He was responsible for the development of ceramic dielectrics and the production of ceramic capacitors. He obtained a patent for his system of piezoelectric ceramics manufactured by Plessey and used in the OCTOSON Ultrasonic Scanner, BARRA Sonobuoys for anti-submarine defence, and a miniature hearing aid for children. All of these have become major export earners for Australia.

Hans also developed the VK2AOU tri-band radio ham aerial, which for a long time was better than any other aerial of its type. He published over 200 articles in local and overseas electronic magazines and presented papers at conferences in Australia and overseas.

He was involved with amateur radio for close on 67 years. He was a member of the WIA and was Federal EMC Co-ordinator from 1987 to 1994. He was a columnist for *Amateur Radio* on EMC and other related matters over many years. His passing left a permanent mark on the electronic world. Our deepest sympathy is extended to his surviving children Sigrid and Hardy, and their families.

Stephen Pall VK2PS

Ian Fraser Berwick VK3ALZ

Many readers will have been saddened by the passing of Ian Berwick VK3ALZ.

Ian lost his battle with cancer on 21 October 1997. First licensed in January 1952, Ian enjoyed many aspects of the hobby, including contesting. His early successes included winning the Open Section of the 1959 RD contest and he was the first operator to win the Ross Hull Contest more than once, winning in 1956/57, 57/58 and 58/59. His latest success was winning the 1996 RD contest, HF section.

Ian became something of a legend, having been the first VK to span the Pacific on 6 m (to XE1FU in Mexico in 1959) and setting an Australian record on that band which stood for two decades.

Born on 28 June 28 1925 at Yea, Victoria, at an early age Ian was building and inventing gadgets. He was academically gifted, winning a scholarship to Melbourne High School. He later graduated with a diploma from the Forestry School at Creswick, and began work for the Forestry Commission. Unsuitable climatic conditions in some of his job locations and a love for radio caused Ian to find work at Essendon Airport servicing radios for firstly AWA and then NIC. However, his employer for 36 years was the Department of Supply (later the Department of Defence) where he worked designing and constructing electronic equipment for chemistry research.

At a mature age, motivated by interest in mathematical analysis and natural curiosity, Ian undertook a degree course in Electrical Engineering, graduating in 1977, from the Footscray Institute of Technology. After graduation he continued to work designing, building and operating test equipment as before. He was not interested in the managerial positions others might have aspired to.

The very first contact one of us (VK3AL) had was with Ian in 1955. At that time he was living in a tent on his block of land in Glenroy. Mains power had not been connected, so, with true amateur ingenuity, Ian operated his 2 m rig (2 watts AM to a 6J6) from a pedal-powered generator.

Ian was an inveterate experimenter and constructor who refused to buy anything he could make himself. He was also a dedicated

researcher and wrote many articles for *Amateur Radio* over forty years. His development of the long Quad (loop Yagi) broke new ground; however, much to his disappointment, his contribution was never acknowledged and the credit went to others.

His other long term interest was astronomy and many will remember his on-air descriptions of his experiences with grinding telescope mirrors.

Although an intensely private individual, Ian was an active and unselfish operator on all bands from 1.8 MHz to 2.4 GHz. His outstanding signal and friendly voice will be greatly missed. Ian is survived by his two sisters, Joan and Betty, his brother David, and many nephews, nieces, great-nephews and great-nieces.

Farewell Ian.

Eric VK3AX, Alan VK3AL, John VK3KWA, Ron VK3AFW.

Noel Leslie Martin VK4PQ

Noel Martin VK4PQ passed away at his home in Kawana Waters, Queensland, on 9 January 1998, at the age of 69. He was born in Dalby on 15 April 1928. At three years of age he contracted polio which left him without the use of his legs. His first job after leaving school was as a projectionist for the local movie theatres. He also installed public address systems at the show-grounds and for other functions. He studied and obtained his electrician's ticket, taught himself motor and refrigeration mechanics, and much more than the basics of engineering, and fitting and turning. Noel reconstructed a car to take hand controls and soon acquired a driving licence.

Noel's twenties and thirties were spent building up a reputable business on the Darling Downs. His leisure interests were photography, leather work, and competing in motorkhanas most of which he won. One of his main interests, however, was amateur radio which continued throughout his life.

Noel became interested in amateur radio while living at Bell, Queensland. He was tutored by Eric Nissen VK4XN and on 3 September 1952 was licensed as VK4PP. He took up the additional callsign VK4PQ on 29 June 1962 and held both calls concurrently until 8 December 1975 when, on official request, he relinquished VK4PP. Subsequently, his call VK4PQ came to be known world wide.

In the late sixties Noel moved to the Sunshine Coast and built in Kawana where he met and married Monika. He learned fibre-glassing and, together with Monika, built and repaired fibreglass boats, became involved in professional fishing and, in later years with Monika and daughter Katie, established a printing business.

Noel was a man with a disability but was not disabled; he lived life to the fullest, and will be sadly missed by his family and many friends. He is survived by his wife Monika, daughter Katie and sisters Heather and Jan.

Ron Marschke VK4GZ

Malcolm Saw VK6SM

It is with profound regret that we record the death of Malcolm (Mal) Saw on 29 October 1997 after a brief illness.

Mal was born in West Perth on 16 April 1921. After primary schooling he commenced studies at the Perth Technical College with a leaning towards electrical engineering. On the outbreak of WW2, Mal entered the Army and later transferred to the RAAF, serving in several areas including Boulder, Darwin and New Guinea.

During his Boulder service he met Anne, who was serving in the WAAF, and they were married in Perth in 1945. They had two daughters, Margaret and Dianne.

On his discharge from the RAAF, Mal returned, undertook a four year course under the auspices of the Rehabilitation Scheme, and qualified in Electrical Engineering. Mal also qualified for the AOCP and, in 1951, built the family home in the Perth suburb of Doubleview in a high position, providing an excellent QTH for amateur radio propagation. Mal's interest in amateur radio included HF DX operating in earlier years and, latterly, digital modes. He effectively used computing for this and also in his designing work.

Mal worked for several employers and then commenced his own consulting engineering business which he conducted from his home to the time of his death. Malcolm was involved in the electrical refurbishing of His Majesty's Theatre and, in latter years, with design for retirement villages. He was working on an RSL village electrics design at the time he fell ill.

Mal was an active member of the Rotary Club of West Perth. His long service to the club and his sterling qualities were recognised by the granting of a Paul Harris Fellowship in 1987.

In 1986 Mal was involved in the formation of the Probus Club of Wembley. He was a continuing Committee member of that club.

A large number of friends, including Probus Club members and amateurs, attended the funeral to share with Anne and family in farewelling Malcolm. During the eulogy, Mal's life achievements and strength of character were mentioned and his devotion to his family was emphasised.

Those of us who knew Mal well are the better for having known him and will miss him. His many amateur friends join in expressing condolences to Anne and family.

Frank Taylor VK6JK

Tommy Price VK6TP

Tommy (he preferred the more informal style of address) passed away on Boxing Day 1997 aged 86 after a period of ill health. He is survived by his wife Margaret, daughter Melanie, son-in-law Paul and grandchildren Simon, Felicity and Sebastian.

Born in the UK, Tommy was known to a far wider public for his exploits in competition motorcycling than amateur radio. His reputation on the cinder track was established in the pre-war years and continued into the post war era. Before migrating to Australia, he became interested in our hobby and worked for some years with the call G3KDH.

Sadly, his retirement in a new land coincided with the poorest HF conditions for several years and, despite excellent equipment and keen monitoring, QSOs with long-time friends in the UK weren't as good or as frequent as he had hoped for. Another of his interests was lathe work at which he showed great skill.

Nice to have known you, Tommy!

Harry Atkinson VK6WZ

Thomas A Allen VK7AL

It is with regret we record the passing of Tom Allen VK7AL on 25 January 1998 after courageously coping with a terminal illness.

Tom was elected a Life Member of the Institute in 1966 in recognition of his outstanding service to the Tasmanian Division of the WIA and the Institute in general. He occupied several positions in the Southern Branch and the VK7 Division, being Divisional President over eight years.

Tom served in an Army Brigade Electronics Workshop in New Guinea during WW2 with the rank of Sergeant Major/Warrant Officer Class 2. After the war he joined the Army Reserve and rose to the rank of Captain. Through this association, Tom acquired a military bearing, and power of command, which, when required made him a most worthy representative of the Institute during formal occasions.

When I first met Tom, he was employed by a then well known electrical retailer, Laurence and Hanson. Later he branched out on his own, representing Siemens in Tasmania. Tom was finally employed by the Health Department, maintaining X-ray and other medical equipment throughout the State.

Tom is survived by his wife Evelyn and two daughters, Kathryn and Margaret.

Tom's many friends join in expressing their sincere condolences to his wife and family.

E A Beard VK7EB

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Over To You

All letters from members will be considered for publication, but should be less than 300 words. The WIA accepts no responsibility for opinions expressed by correspondents.

Morse Code – When Help is Needed

Telegraphy is dying – superfluous to our needs. Soon even the aircraft beacons and marine buoys that use Morse code to identify themselves will be replaced.

However, from what I've been reading in the press for the past few months I am having second thoughts about its necessity. A radio amateur in North Wales, UK, in intensive care, near paralysed, was able to communicate with his wife sending Morse code with his toes. His wife had learnt the code in the Girl Guides.

A former Signals Officer in Australia, paralysed with the Guillain-Barre syndrome, was able to communicate using twitching movements of the eye lids. A similar incident was described with an ex-Merchant Navy Radio Officer who had the syndrome in England.

Perhaps we should keep Morse Code in the licence, if only for medical reasons. Who can send digital signals with their eye-lids? Especially in Hex!

I wondered if any members of the Amateur Fraternity had, or know of, any similar medical incidents where Morse Code was prominent as the communication medium?

David A Pilley VK2AYD
41 Cain Close, King Creek NSW 2446
davpil@midcoast.com.au

Amateur Web Pages

Like so many amateurs these days who have access to the Internet I created a home page *http://www.albury.net.au/~lorian* based around my hobby with links to other larger amateur radio sites. Surprisingly enough it manages about two to five hits a week and that's in a small country area. Imagine how much could be done in the city.

Like so much of the Internet it is a great advertising medium. Many providers will allow a certain amount for a home page free of cost so I would encourage everyone who has the opportunity to create a home page on their local provider.

There are already some great sites about. Just type Ballarat or Bendigo into a search engine and the local radio clubs are right up front. It's great to see them there. Following on from this I would like to suggest that the call book incorporate e-mail addresses alongside callsigns.

Ian Glanville VK3AQU
6 Leggio Road, Myrtleford VIC 373
e-mail: *lorian@albury.net.au*

The Real Murphy

I am the lucky prize winner of a "Fluke" Digital Multimeter. I write to express my appreciation to the Wireless Institute of Australia for the terrific prize.

You will note that my surname is Murphy. I am trusting that the multimeter will be "Murphy-proof". Over the years I have purchased and used various cheap meters and they have all suffered a similar fate. "Murphy strikes again!"

One of my Ham friends has suggested that I will need to get in a D7 bulldozer to make room for the new meter on the shack bench. I deny this rude remark! It should only require something smaller like a Bobcat.

Thank you again for a wonderful prize.

Neil Murphy VK2GAN
"Auro"
Bean Creek, Old Bonalbo NSW 2469

Hope for Amateur Radio Future

Like many amateurs I have been concerned at the direction, or lack of, that our fine hobby seems to be taking. However, after reading *Amateur Radio* for February, I now feel a glimmer of hope

The items I refer to are the *Revival of LF Band Allocation Submission by the WIA* and the letter regarding Morse Speed by VK2AZW.

I strongly support the allocation of a band between 100 and 200 kHz for the use of amateurs. This I believe would rekindle interest in experimentation and home construction.

We could even see magazines like *Electronics Australia* again publishing amateur radio projects. How many people remember the 2JU transmitters and receivers from *Radio and Hobbies*?

As for the proposal by VK2AZW that the Morse speed for a full call licence be reduced to five words per minute, I believe this to be the most sensible compromise to the retention of Morse debate. To those who say *"I had to pass 10 words per minute so everybody else should"* I would remind them that once the required speed was 14 words per minute, so this would not be the first time speed has been reduced.

If these two proposals were implemented I strongly believe it would provide a greatly needed boost to our fine hobby.

Mike Ide VK3KTO
"Thimbles"
94 Rutherford Parade
Warneet VIC 3980
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WIA Divisions

VK2 Notes

Elections

This year's elections for the VK2 Divisional Council will be just as important as in previous years, especially so this year, in that there are many projects that must be continued with the same effective momentum. Choose carefully, because whoever you vote for will be your representatives for the next 12 months.

1998 Annual General Meeting

The date set for the AGM is 18 April, 1998 at Amateur Radio House, Parramatta. It will commence at 1100 local. Nominations for Council and Motions on Notice are to be lodged no later than 12 Noon on 7 March, 1998. Late lodgements will not be accepted. Ballot papers and the annual report will be forwarded to members as soon as possible after this date. Completed ballot papers should be returned to the Parramatta office using the reply paid envelope to arrive no later than last post Friday, 17 April 1998. They will then be counted and the returning officer will announce the results at the AGM on the next day. Please note that it is very important that the instructions forwarded with the ballot papers and the proxy forms are strictly followed, otherwise your vote could be informal. Council nomination forms are available from the divisional office at Parramatta. The AGM starts at 1100 local on the Saturday at Amateur Radio House in Parramatta.

Year 2000 Committee Formed

It is very pleasing to be able to report that the Year 2000 Committee has been formed. I presided over its first meeting at Amateur Radio House at Parramatta on Saturday, 7 February 1998. It was a very enthusiastic gathering, discussing many ideas and ways in which amateur radio would be ready for the Year 2000 Olympic Games in Sydney. Of course it is virtually impossible here to pass on all the details, but be assured that over the coming months, if re-elected to Council, I will introduce you to the Committee and tell you of some of the plans, aims and objectives and achievements as they are completed.

Allow me to assure you that preparation for the Year 2000 Olympics is an ongoing project and that the Committee comprises some very talented people possessing knowledge and expertise in many varied areas. On behalf of the Councillors of the WIA, VK2 Division, I thank those on the Committee for giving their time and efforts in aid of what will be a long term project.

On the subject of committees, it would be a good time for me to mention that there are many people who, under the auspices of the WIA and right throughout the amateur community, serve on committees. These dedicated people provide unpaid voluntary labour and plenty of it, to make sure WIA members and the amateur population generally receives essential services, such as repeaters, representation to the authorities, educational services, the formulation of Policy and Strategy and the technical know how. Basically these people decide what has to be done and then go and do it. To all those and others, thank you a thousand times.

Happy Birthday Wagga Amateur Radio Club

The VK2 Division heartily congratulates the Wagga Club on its 500th net held on Tuesday, 27 January 1998. It is also the club's 30th birthday this year. Secretary Eric Fossey VK2EFY dropped in on the night and said just what I have printed here, or words to that effect.

Central Coast Field Day

The VK2 Division attended the Central Coast Field Day at the Wyong Racecourse with a bookstall and deceased estates stall. This was an ideal opportunity for people to catch up with their friends and many had a chat with those Councillors of the Division who attended. There was quite a good roll up of Councillors on the day and, as they say in the classics, a good time was had by all.

Membership Renewals

Just a reminder that all VK2 WIA membership renewals are being processed through the Divisional Office at Parramatta. Anyone who has received a renewal notice, but has not yet responded, should forward the notice along with their fee to the VK2 Divisional office of the Wireless Institute at PO Box 1066, Parramatta NSW 2124. Do not send it to the Federal Office. According to Secretary Eric, in 1997 the NSW Division accepted more than 50 percent of the total new membership of the WIA nation-wide.

Correspondence Course

The VK2 Novice Correspondence Course is now available. For more information contact the Parramatta Office. It is a great way to achieve a positive result and gain your amateur radio callsign. There will shortly be a bridging course to take you to the AOCP (full-call).

Next Council Meeting

The next meeting of the VK2 Councillors will take place on Friday, 13 March at Amateur Radio House at Parramatta commencing at 7.00 p.m. The April Council meeting will be held on the first Friday of the month, which will be 3 April. This is due to the fact that 10 April, the second Friday, is Good Friday.

For more information, contact the office or any of the Councillors. We will be only too pleased to hear from you. If you would like to get in touch with an individual Councillor, just contact our Divisional office and it will be arranged. Our freecall phone number is 1 800 817 644 and our address can be found on the WIA Divisions' page. If you are addressing email to the office, please do so at *vk2wi@ozemail.com.au*. There'll be more to report next month, but if you have anything you would like us to include as VK2 news, send it to me at PO Box 82, Springwood NSW 2777 or by email to *dthom@penrithcity.nsw.gov.au*

David Thompson VK2NH

VK3 Notes

Office Update

After five years operation from the Victory Boulevard, Ashburton office, it was time to review the way things are done and the available office equipment resources. During the Christmas/New Year holiday period when the doors of the office were closed, considerable updating of computer equipment took place to make way for improved member services in 1998 and beyond. And in answer to an obvious question, yes, we have also taken the opportunity to ensure that the computer software in use is Millennium or k2 bug free!.

In another "sign of the times", Australia Post has advised that its mail delivery and receiving services have been relocated from Ashburton to the Burwood post office. It is unclear at this time what impact this will have on the office, but the extra distance involved for parcel and mail bag handling is certain to add to mail delivery times.

Monthly Broadcast

The broadcast facility site at Lyndhurst, which served us well for many years, has been closed after the land owned by the government department was sold late last year. WIA Victoria is now negotiating for another site and is hopeful of re-locating VK3BWI to a new home soon. The broadcast, on the first Sunday of each month,

is to be heard on two metre and 70 centimetre repeaters direct from the studio, and relayed on 40 and 80 metres.

The VHF/UHF transmission equipment, audio panel and amplifiers have been updated and early testing showed it performing up to broadcast quality standards.

Disposals Transceivers

WIA Victoria has obtained a large quantity of Philips FM92 transceivers. These are fully synthesised FM mobile sets with scanning facilities, ideal for conversion to the two metre band. The frequency control is an EPROM which needs to be reprogrammed to the buyer's choice of channels and scanning requirements.

The cost to WIA members is between $20 and $40. We cannot arrange freight for buyers but, in line with our long standing policy, country members can buy and reserve a FM92 transceiver which will be held according to pick-up arrangements.

Internet Homepage

The WIA Victoria homepage is under continued development. Among the latest additions is WIA Victoria news broadcast highlights and WIA Federal news. Historic and feature material is being placed progressively; thank you to those members who responded to an earlier request in the VK3 Notes column for ideas and contributions.

The homepage *www.tbsa.com.au/~wiavic* is playing a key role in attracting new members, both prospective radio amateurs and those who already hold a callsign.

Repeater Licences

It was very pleasing to see that the initial impasse over repeater and beacon licence fees was resolved through negotiation between the WIA and the Australian Communications Authority.

Concern about the level of fees and complexity of licence arrangements was felt throughout Australia, and WIA Victoria shared many of the concerns because it pays the licence fees for an extensive network of repeaters.

After little positive progress on the issue, WIA Victoria sent a representative to Canberra at the expressed invitation of ACA officials. The outcome of the amiable discussions and negotiations that flowed from that meeting resulted in resolution of the repeater and beacon licence fees issue for all of Australia, and earned WIA Victoria the heart-felt thanks of many repeater licensees around the nation.

Finances on Track

The annual audit of WIA Victoria's finances which covered the 12 months ended December 1997, confirmed the completion of another successful financial year. Further information will be included in the annual reports sent to all members in May.

Jim Linton VK3PC

VK5 and VK8 Notes

The following notes include material taken from scripts of recent VK5WI Sunday morning broadcasts. Many members do not hear these broadcasts or see the notes provided via packet radio. I feel this information is relevant and should help members understand how it is provided.

Our "South Australian" Astronaut

Please excuse a little bit of parochialism.

I received a query regarding claiming Andy Thomas VK5MIR/KD5CHF as an "Australian". My correspondent pointed out that Andy had taken up American citizenship. However, the laws have changed and I can assure you that when I met Andy he was most pleased and proud of the fact that he had been able to regain his Australian citizenship. I thus have no hesitation in claiming him as ours.

The Adelaide media are intrigued that we have our own astronaut. Numerous telephone calls have requested additional information.

Meantime, several VK5 stations are looking for signals on an opportunity basis just in case someone decides to make a call on the amateur radio gear. When someone contacts MIR we will soon hear about it. The relief crew which has joined the station is comprised of Russian cosmonauts who have been up there previously and who are known to enjoy their amateur radio contacts when time allows such activity.

The word I have from the Johnson Space Centre is that it could be mid February before anything much happens along these lines.

Membership and Public Relations

I have been able to make comment about amateur radio on several occasions in "on air" broadcasts over commercial and ABC radio broadcasting stations as well as in Sydney newspapers. Some of this was linked to United Kingdom statements that their maritime safety organisation would no longer be using Morse Code as a means of communication for emergency purposes. The story regarding Andy Thomas also played a part.

Consequently, I was asked to attend the ABC studios here in Adelaide where I was given the opportunity to talk with one of the presenters for 10 minutes or more on amateur radio in general. We covered a great deal of ground and showed how wide-ranging amateur radio actually is.

As a result of this publicity I received a number of queries as to how people can take up amateur radio. In each case I have provided them with more information, especially the fact it is a hobby for almost everybody. I have directed them to our Education Officer and Membership Secretary, Tony VK5WC, for additional information on getting started.

It is interesting to see how one thing leads to another. We can do ourselves a service and also help other people at the same time. Can you play a part in helping to swell our ranks by telling others about our hobby? As well as encouraging people to take an interest in amateur radio you can also encourage other operators to become members of the Wireless Institute of Australia.

There are obvious benefits in having a strong organisation and strength comes from numbers. That we can have influence was demonstrated by the effective lobby of Federal politicians by the Australian amateurs regarding increased amateur radio licence fees.

Our influence was not only with Federal Parliamentarians, but many other influential people. This included the various state branches of the RSL, as well as its Federal body, placing amateur radio on the agenda for their Federal convention in Canberra. Obviously, the amateur radio operators of Australia can have a strong influence in the community if they put their minds to it.

Imagine just how much more influence is possible if our efforts are channelled through the WIA.

Information to Members

Some effort is required to keep up the flow of information to members, but this is an important part of the Division's functions. Questions were asked at the January General Meeting as to how members are informed. Regular notes are provided for the Sunday morning broadcasts.

The script of the President's Notes section of the broadcast is provided Australia-wide on the Packet Radio Network. Each monthly issue of *Amateur Radio* usually carries Divisional Notes. These notes also attempt to convey to readers of all Divisions the activities, attitudes and opinions occurring in the VK5/VK8 Division. Periodically, additional notes appear in *Amateur Radio* magazine when news emanating from the VK5 Division warrants separate attention.

The *South Australian Divisional Journal* is published bi-monthly. A copy is provided to all Divisional members as an insert to *Amateur Radio* magazine. Where members do not receive *Amateur Radio* magazine a

copy of the *Journal* is mailed to them directly.

Not mentioned at the meeting was the fact that there is a Divisional "Web Page" available on the Internet. The latest report to Council on this aspect indicated that matters were well in hand to update the Web page.

Action is also in hand to provide copies of meeting minutes to Member Clubs outside the metropolitan area.

An open invitation has been given and reiterated from time to time to the effect that members are always welcome to come along to the Divisional Council meetings as observers. These meetings are held at the Headquarters building on the THIRD Tuesday of each month. The Council is always willing to accommodate any reasonable requests you may have and also to allow members, within reason, to address the Council if they so desire.

All members of Council are available to you for discussion. I have provided my telephone number frequently and indicated that queries are welcome. I can be contacted by telephone on either 08 8250 1708 or 08 8250 7712.

I welcome suggestions aimed at improving communication with members.

Finally, more members within the metropolitan area should be able to attend the monthly Divisional meetings. Attendances do not indicate an overwhelming amount of support for the Division. I am aware of some of the reasons for this and these are being addressed wherever Council can do so. Apathy may be a factor.

Ian Hunt VK5QX

VK6 Notes

Back Again

I enjoyed my five weeks in GM land (Scotland) in spite of the cold, but I am sorry to have missed out on the Ross Hull VHF/UHF activity. However, I may not have missed out on any really great openings, as I have been told that propagation has been a bit ordinary considering the time of year.

It was interesting to experience operating conditions in the UK, which I was able to do on HF with equipment borrowed from new friends – it is true about amateur radio being a "fraternity", friends are quickly and easily made after initial on-air contacts. The good news is that there are plenty of people to talk to on all bands, almost regardless of the time of day; but the bad news is the tremendous QRM caused by high powered Europeans, to the extent that I found the 80 m and 40 m bands virtually abandoned by the Gs at night. On VHF, I experienced good propagation via knife-edge refraction, being able to work into the Inverness repeater on the East Coast from the Isle of Skye on the west coast, across vast snow-capped mountain ranges, on just 20 watts and a $^1/_4$ wave ground plane antenna 12 feet high. Locals regularly use aurora (the "Northern Lights") to make interesting long distance contacts into Norway and Northern Europe. Scanning was also very interesting with a lot of VHF activity, which included several real-life dramas at sea.

Well, as I am really just back and have been unable to contact many potential contributors to the column, I have resorted to briefly summarising the latest minutes from the Division; hope to provide something more interesting next time!

From the Minutes

Minutes of Council Meeting 3 February 1998

(A) Agenda Items for the May Federal Convention

1. The matter of Nominations for the positions of Federal President and Directors, and VK6 nominations for various Federal Co-ordinators were discussed.

2. Draft motions concerning the WIA Strategic Plan, a proposal to appoint a part time Chief Executive Officer in Federal Office, and a review of the Magazine and Federal Office components of the Annual Subscription, were tabled.

3. Various other matters were discussed/actioned as follows;

(a) The topics of Limited Novice licensee access to SSB parts of the VHF bands, and the matter of seeking primary segments in the UHF/SHF bands;

(b) Possible management of membership records by Division; and

(c) A possible WIA cash contribution towards the running of the International ARDF Championships to be held in the year 2000.

(B) General Items

1. The forthcoming Conference of Clubs was discussed. A highlight was that the local ACA Area Manager had accepted an invitation to attend for lunch and to address the gathering. Various tasks were also allocated.

2. Late reimbursement of the VK6 component of fees.

3. The proposed HF Gateway licence application.

4. The relay of the "Newsline" service was discussed. It was proposed that "Newsline" will be transmitted on the 6700 repeater and associated network from 1015 to about 1030 WA time each Sunday.

5. The topic of the future of monthly General Meetings was deferred.

6. HF beacon antenna maintenance.

(C) Other Business

1. Peter Barrett VK6PEC, was welcomed as a member of the Division.

2. The "jamming" of a car security system was reported, as an example of the possible effects of using the 70 cm band for such devices.

3. It was reported that there had been 2250 "Hits" on the Division's WWW Internet site.

4. Concern was expressed about the validity of current insurance for tower climbing operations.

WARG Technical Meeting, 2/2/98

This meeting was held in the new (recently built) RSL building to evaluate it as a possible future venue, and terms were discussed with the RSL Management. If ratified by the committee, the new address for meetings would then be RSL Hall, Ramsden St, Victoria Park.

1. It was noted that the production of the newsletter was now due, and Mel VK6TVA volunteered to produce the newsletter up to the final proof. The intention was to mail the finished article to members in time for committee nominations for the AGM which was 4 May.

2. Other items discussed and actioned were: Quarry (Ch 6800) passes, reimburseable payments, ACA Repeater License payments (total $683 approved), and general correspondence, including letters to Busselton, Worksafe and Insurance Co.

3. A letter was received from the NCRG, seeking WARG support of their application to Wanneroo Council for the siting of the club's VK6RNC repeater at the Council's Two way radio tower at Yanchep. *"We endorse the siting of this Amateur repeater in Yanchep which would become a valuable asset serving Amateurs in the North of the Metropolitan Area"* – to be actioned by the Secretary.

In closing, we would hope to bring you a full report from the recently held "Conference of Clubs" inaugural meeting, in the April issue. And, as always, any local news or event details that anyone can provide will be especially appreciated.

Notice of Annual General Meeting

It is hereby notified that the Annual General Meeting of the Wireless Institute of Australia (Western Australian Division Inc) will be held on Tuesday, 28 April 1998 following the General Meeting which commences at 8 pm.

The meeting will be held in the Board Room, 3rd Floor, CWA House, 1174 Hay Street, West Perth.

The agenda will be:

1. Consideration of the Council's annual report.
2. Consideration of the financial report.
3. Consideration of other reports.
4. Election of office-bearers (President, Vice President and seven other Councillors).
5. Election of two Auditors.
6. Appointment of a Patron.
7. General business which has been duly notified.

Notices of Motion for the AGM must be received by the Secretary not less than 42 days prior to the meeting (ie by 17 March 1998), and must be signed by at least three members. The Secretary's postal address is: PO Box 10, West Perth WA 6872.

Nominations of candidates for election to Council must be received by the Secretary, in writing, not less than 42 days prior to the meeting (ie by 17 March 1998), with an intimation that the candidate is willing to act.

A candidate may submit a statement, not exceeding 200 words, outlining his or her experience and case for election. Each nomination shall be signed by two members proposing the candidate. Candidates must possess a current licence.

Any financial member who is entitled to vote may appoint a proxy, who must also be a financial member who is entitled to vote, to speak and vote on his or her behalf. Written notice of such proxy must be received by the Secretary prior to the meeting, and be in the following form:

I (full name), a member of the Institute, hereby appoint (full name), also a member of the Institute, to act for me as my proxy, and in my name do all things which I myself being present could do at the meeting of the Institute held on the 28th April 1998.
Signed:
Witness:
Date:

Contact Info

If you have anything coming up that you wish to put the word out on, please contact Chris on e-mail at *vk6kch@amsat.org*; packet at VK6KCH@VK6BBR.#PER.#WA.AUS.OC ; or me, Chris Lowe VK6BIK on e-mail at *chrismor@avon.net.au* or PO Box 838 Toodyay, WA 6566; or 08 9574 4060.

Chris Lowe VK6BIK

"QRM" News from the Tasmanian Division

The preparations for the Divisional AGM are coming together and we are now expecting a bumper attendance, especially since it was announced that there is going to a wonderful door prize offered at the evening dinner. Yes, that's right! An Icom IC-T8A tri-band (2 m, 6 m and 70 cm) handheld transceiver will be in the hands of some lucky licensed amateur present at the evening's festivities. Our sincere thanks go to Marcom-Watson and Icom for donating this wonderful prize. Have you planned yet to come along? It's not to late to attend. Let the Northern Branch secretary know NOW that you will be there.

The Divisional Annual General Meeting will be held on Saturday, 21 March at the Northern campus of the University of Tasmania at Newnham. The meeting is scheduled for 1400 hours and, after the business of the meeting is concluded, we will have an address from our guest speaker, Mr Peter Stackpole VK1RX, Executive Manager, Customer Services Division, Australian Communications Authority in Canberra. His talk in the afternoon session will be specifically related to amateur radio.

There is also going to be a trade table available for that pre-loved gear from 11 am, plus there will be trade displays (some of them hopefully operational) from 12 noon.

Have you recently constructed some homebrew equipment? Well there is also a competition for the best constructed and presented piece of homebrew equipment.

Wait! There's more! Yes, there will be a Fluke multimeter, donated by Dick Smith Electronics as a prize for the best homebrew on show!

Whilst the AGM is in progress, there will also be a craft demonstration nearby for YLs, XYLs and harmonics.

In the evening we will gather at 1800 hours for pre-dinner drinks. There will be a dinner at the University Cafeteria. It will be a bistro meal where you can choose what food and drinks you want and pay for it. The range is top class, I am assured.

Then you can dance the night away. The well-known local group "Bounty" has been booked and it has an active ham in its line-up. The prizes will be drawn later on and our guest speaker, Mr Peter Stackpole from the ACA, will give an address. So plan to attend NOW! Yes, I know it is on the weekend of the John Moyle Field Day, but we didn't plan it that way.

By now all amateurs in the State will have been circularised about the Division's activities and made aware of several pressing concerns, particularly repeater funding. This publicity campaign is to introduce the WIA to all amateurs in VK7, not all of whom are currently members. Details of the AGM and dinner, plus other Divisional news, will also be included. We would ask you to promptly send in the questionnaires as it will help the Division plan their future activities which will benefit all amateurs in this State.

It is with deep regret and sadness that we announce the passing of Tom Allen VK7AL, past Divisional President and Life Member of this Division. I first came into contact with him when I was in Hobart in 1967 and Tom was then Divisional President.

Our condolences are extended to his widow and daughters. His cheery voice will certainly be missed from the airwaves. Vale VK7AL.

The North and North-western Branches will be having their annual combined meeting at Deloraine on Tuesday, 10 March at the Anglican Parish Hall. This time, guest speakers will be provided by the North-western branch. I warn you now to expect a shocking time. I only hope that someone has the foresight to warn the nearby Police Station when the sparks fly!

The Southern Branch meets on Wednesday, 4 March at the Domain Activity Centre. The North-western Branch will be holding their annual BBQ at Legion Park, Ulverstone on Saturday, 7 March from 1100 hours.

Don't forget the AGM and dinner with the fabulous door prize on 21 March. See you there!

Robin L Harwood VK7RH

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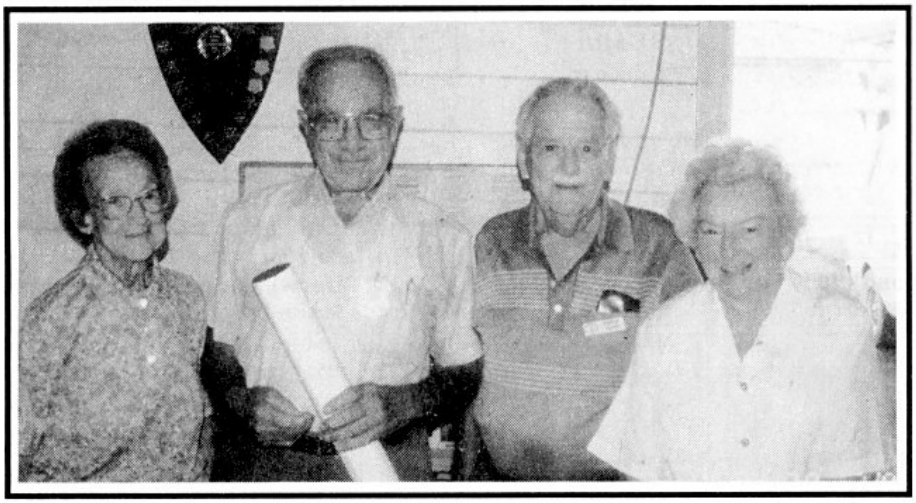
ACA Changes Address in Melbourne

The ACA (Australian Communications Authority) **Melbourne Central Office** changed their Melbourne address on 2 February 1998 to: Level 13, 200 Queen Street, Melbourne (corner Little Bourke Street). The new telephone number is 03 9963 6800 and the new fax number is 03 9963 6899. The new postal address is: PO Box 13112, Law Courts, Melbourne VIC 8010.

By mid to late March 1998, the ACA **Area Office** in Melbourne will have moved to Level 15, 200 Queen Street, Melbourne (corner Little Bourke Street). The new telephone number will be 03 9963 6988 and the new fax number will be 03 9963 6989. The new postal address will be: PO Box 13120, Law Courts, Melbourne VIC 8010.

Club News



Meg and Alf VK2UG, and Peter VK2PA (now SK) and Ina at the 1997 Urunga Radio Convention. Peter was the foundation secretary of the first Urunga Convention. Alf was at the first Convention in 1949 and is one of the few amateurs at that Convention who is still an active amateur.

50th Urunga Radio Convention

The 50th Radio Convention will be held at Urunga on the Easter weekend of 11-12 April 1998. This Convention is the first and longest running amateur radio Convention in Australia. Also, Urunga could well be called the Fox Hunt Capital of Australia.

The Convention was started by a chance suggestion by Crieff VK2XO to Peter VK2PA, Col Fletcher VK2ASF and Doug Gill VK2SH, while they were all on an oyster punt being transported across a lagoon to Point Plummer to participate in that year's Remembrance Day Contest.

As a result, the group gathered together with a number of other interested hams from the area at the DO-ME boat shed. They spent the Easter weekend together and so was born the Urunga Radio Convention. There were too many to sleep in the one boat shed so the shed next door, owned by the McWilliams family of wine fame, was also used to bed the sober and not so sober gathering – the second boat shed was called DO-ME 2.

See you at the 50th Urunga Radio convention on the Easter weekend!

B J Slarke VK2ZCQ

Northern Corridor Radio Group

CQ World Wide CW Contest

Phil N6ZZ travelled to Perth, Zone 29, for the 1997 CQ World Wide CW Contest. Using a reciprocal licence, VK6BAT, he operated for almost the entire 48 hour period of the contest as a single-operator, multi-band entrant.

Phil set what appears to be a record for VK6 in the CQ Contest of 3845 contacts!

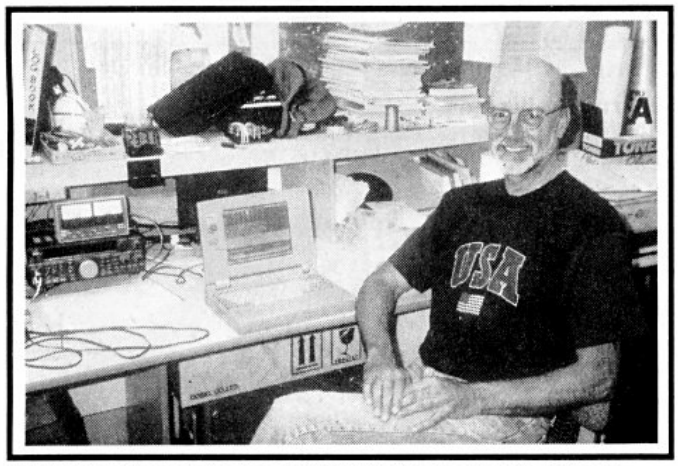
Using the club station of the Northern Corridor Radio Group, VK6AN, with accommodation, transport and sustenance provided by club members, Phil achieved Zone 29 worked in the contest. His aim is to work through all 40 Zones for the contest – he is now nearing the half-way mark.

"Let's Communicate 97"

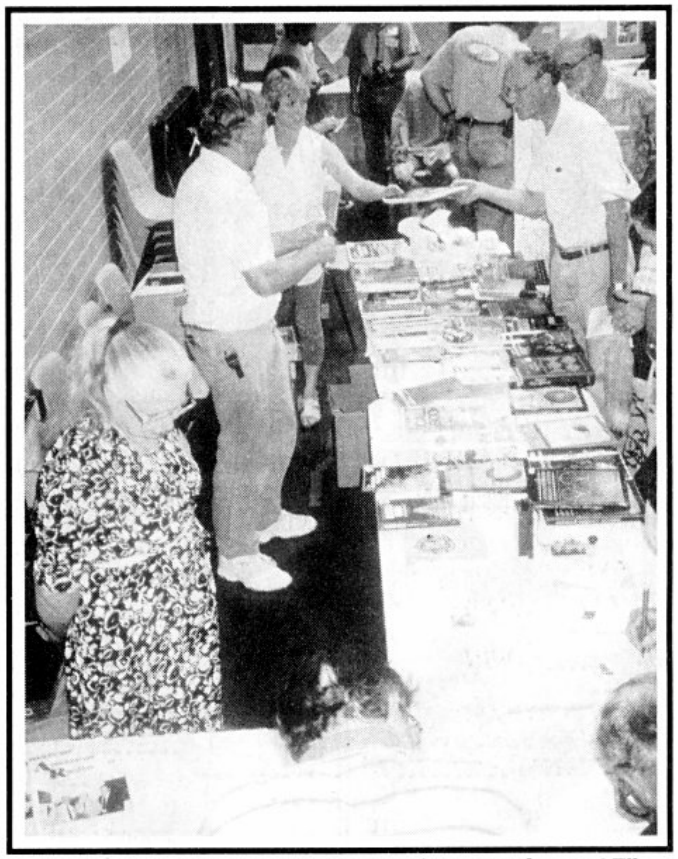
Nearly 500 people attended the NCRG "Let's Communicate 97" event on 2 November 1997. Held in Perth each year, this event is Perth's biggest amateur gathering.

The first prize of an Icom IC-D1A was won by Kevin Roach VK6TKR. Icom Australia's Yoji Hashimoto VK3FIC and Duncan Baxter VK3LZ travelled across from Melbourne for the event.

Neil Penfold VK6NE



Phil N6ZZ operated as VK6BAT from the Northern Corridor Radio Group station VK6AN during the 1997 CQ World Wide CW Contest.

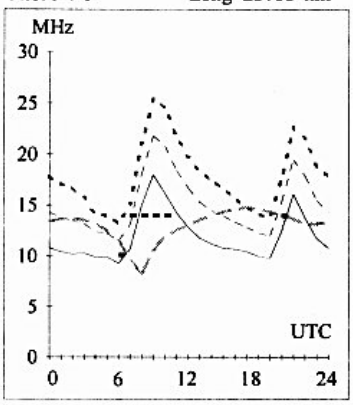


The WIA Bookshop stall at "Let's Communicate 97" did a roaring trade. ar

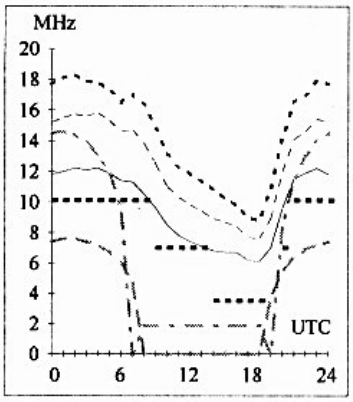
HF Predictions

Evan Jarman VK3ANI

Adelaide-London 132
First F 0-5 Long 23755 km



Brisbane-Christchurch 141
Second 2F18-23 2E5 Short 2517 km



T Index: 57

These graphs show the predicted diurnal variation in key frequencies for the nominated circuits. They also nominate the best amateur band for communication.

The frequencies, identified in the legend, are:-

- Upper Decile (F-layer)
- F-layer Maximum Useable Frequency
- E-layer Maximum Useable Frequency
- Optimum Working Frequency (F-layer)
- Absorption Limiting Frequency

The predictions were made with the Ionospheric Prediction Service program, ASAPS V3.2. The T index used is shown above the legend. The Australian terminal azimuth, path and propagation mode are also given for each circuit.

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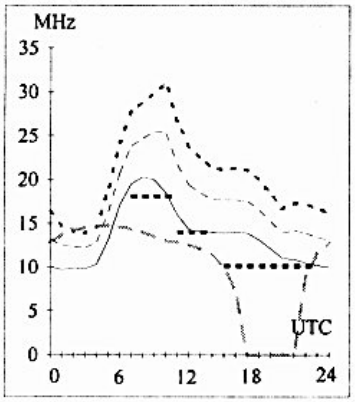
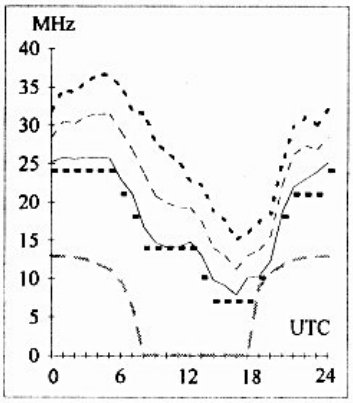
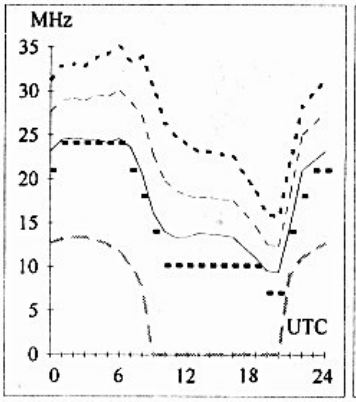
Adelaide-London 312
First F 0-5 Short 16269 km



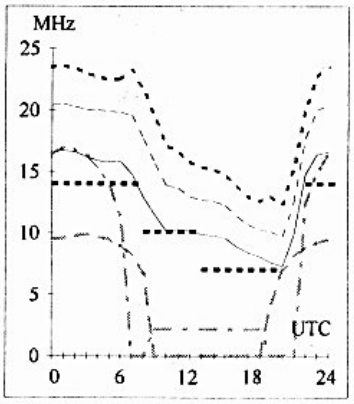
Brisbane-Honolulu 49
Second 3F5-11 3E0 Short 7569 km



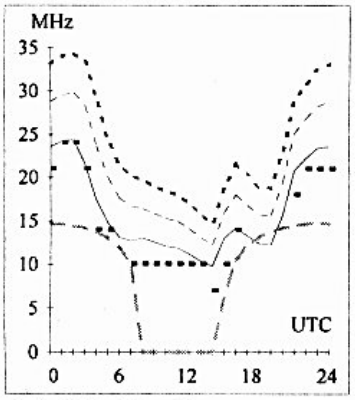
Canberra-Tokyo 352
Second 3F4-9 3E0 Short 7948 km



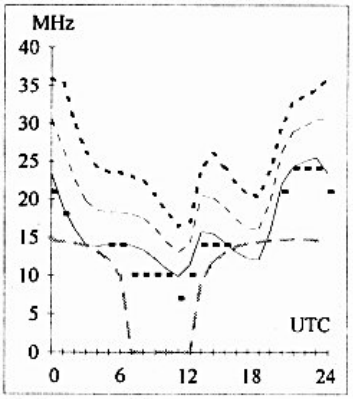
Darwin-Auckland 130
Second 3F12-16 3E2 Short 5135 km



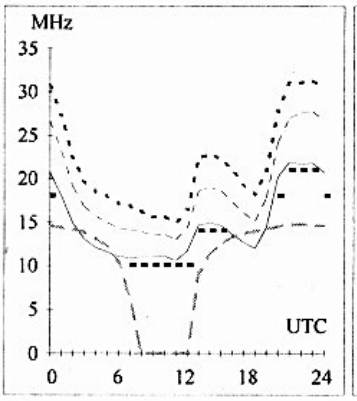
Adelaide-Los Angeles 66
First F 0-5 Short 13158 km



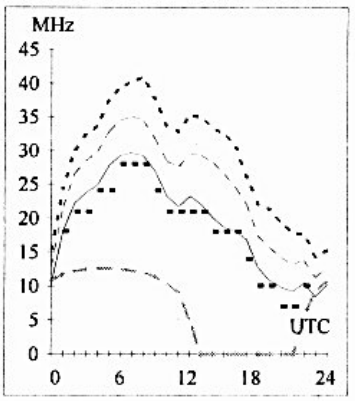
Brisbane-Miami 79
First F 0-5 Short 14759 km



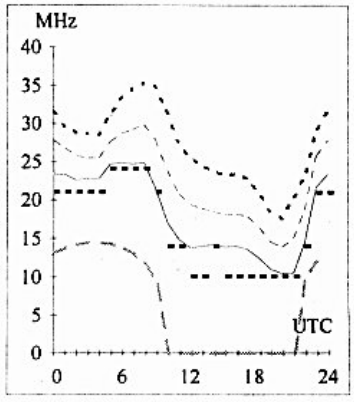
Canberra-Washington 70
First F 0-5 Short 15939 km



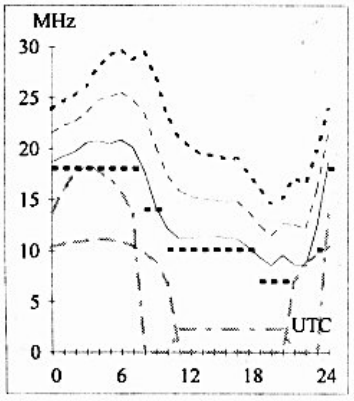
Darwin-New Delhi 309
Second 3F5-11 3E0 Short 7347 km



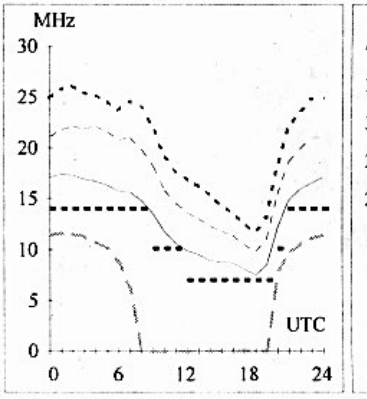
Adelaide-Manila 338
First 2F3-8 2E0 Short 5813 km



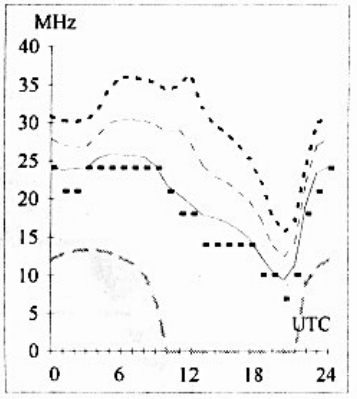
Brisbane-Singapore 293
Second 3F9-13 3E0 Short 6147 km



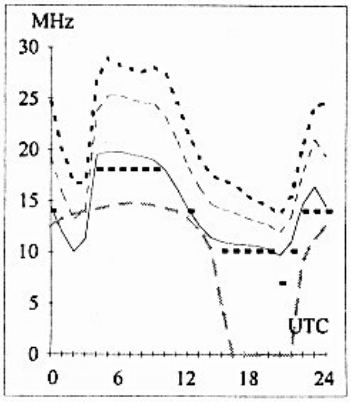
Canberra-Wellington 114
First 1F6-10 1E0 Short 2325 km



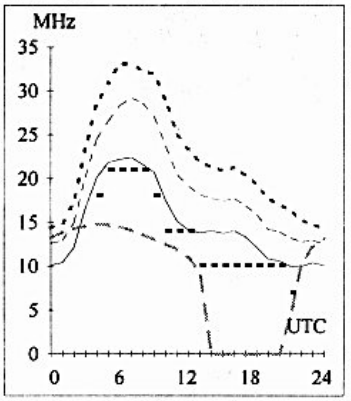
Darwin-Osaka 5
First 2F4-10 2E0 Short 5263 km



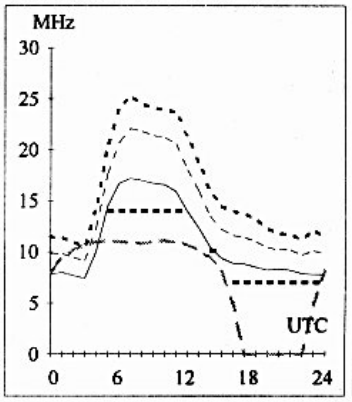
Hobart-Cairo 278
First F 0-5 Short 14264 km



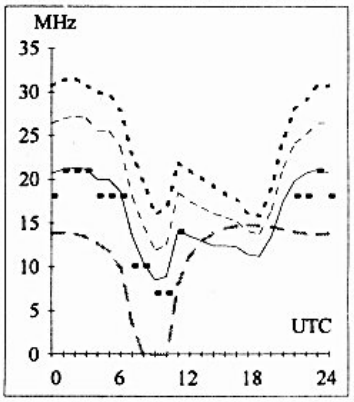
Melbourne-Moscow 316
First F 0-5 Short 14428 km



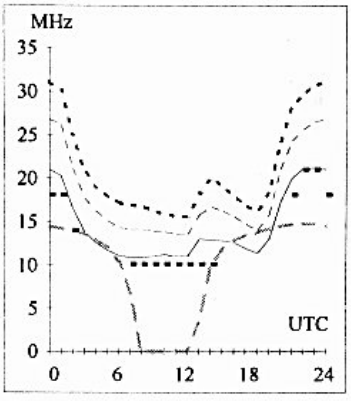
Perth-Capetown 237
Second 4F8-11 4E0 Short 8702 km



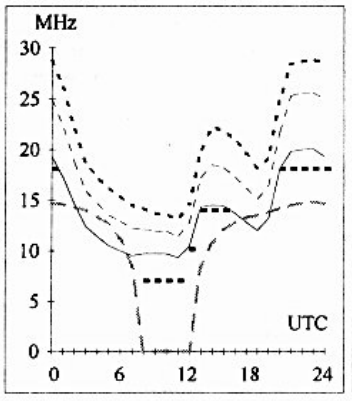
Sydney-Barbados 119
First F 0-5 Short 16155 km



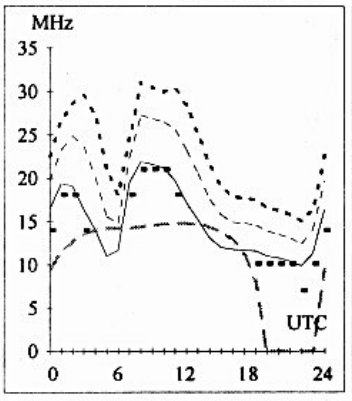
Hobart-Chicago 72
First F 0-5 Short 15576 km



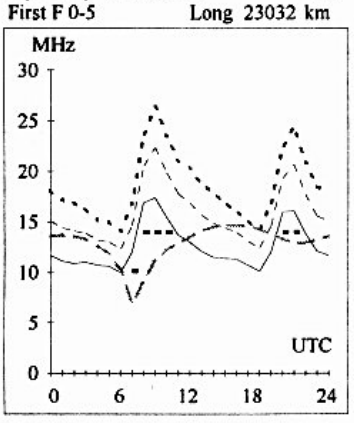
Melbourne-Ottawa 63
First F 0-5 Short 16567 km



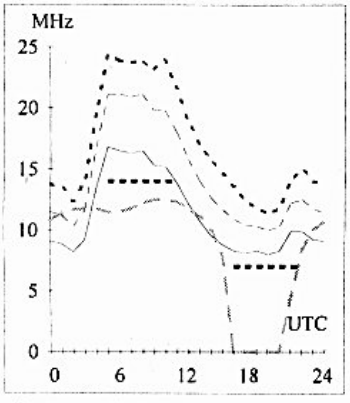
Perth-Dakar 259
First F 0-5 Short 14918 km



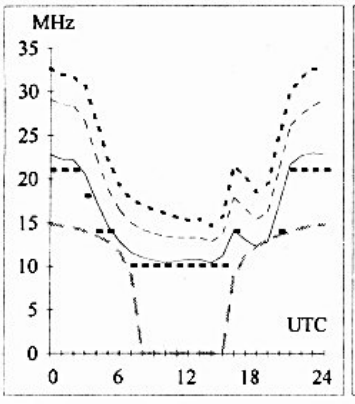
Sydney-London 139
First F 0-5 Long 23032 km



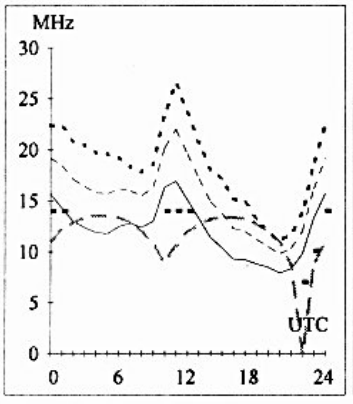
Hobart-Johannesburg 231
Second 4F5-9 4E0 Short 10141 km



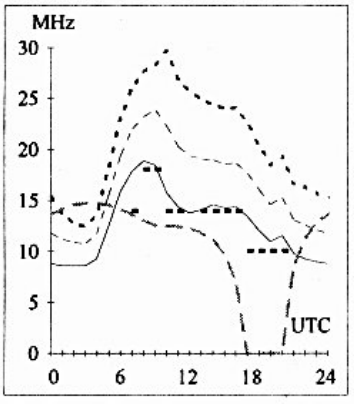
Melbourne-Seattle 50
First F 0-5 Short 13180 km



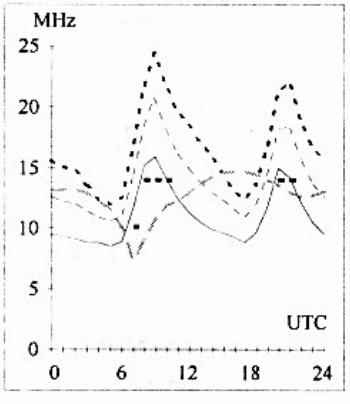
Perth-Montevideo 187
First F 0-5 Short 12536 km



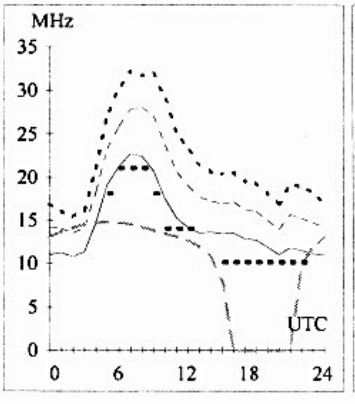
Sydney-London 319
First F 0-5 Short 16992 km



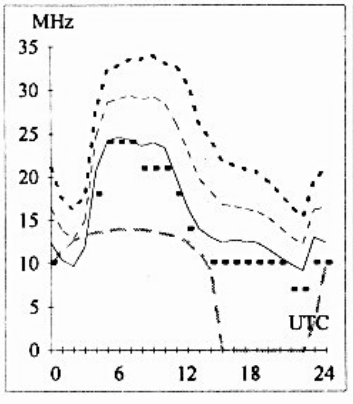
Hobart-Oslo 138
First F 0-5 Long 23450 km



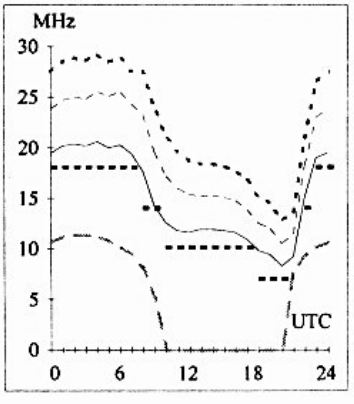
Melbourne-Vienna 303
First F 0-5 Short 15767 km



Perth-Tel Aviv 302
Second 4F3-8 4E0 Short 11091 km



Sydney-Seoul 340
Second 4F8-13 4E0 Short 8325 km



HAMADS

- Hamads may be submitted on the form on the reverse side of the *Amateur Radio* address flysheet. Please use your latest flysheet where possible.
- Please submit separate forms for **For Sale** and **Wanted** items, and be sure to include your name, address and telephone number (including STD code) if you do not use the form on the back of the *Amateur Radio* address flysheet.
- Eight lines (forty words) per issue free to all WIA members, ninth and tenth lines for name and address. Commercial rates apply for non-members.
- Deceased estates Hamads will be published in full, even if the ad is not fully radio equipment.
- WIA policy recommends that the serial number of all equipment offered for sale should be included in the Hamad.
- QTHR means the address is correct in the current WIA Call Book.
- Ordinary Hamads from members who are deemed to be in general electronics retail and wholesale distributive trades should be certified as referring only to private articles not being re-sold for merchandising purposes.
- Commercial advertising (Trade Hamads) are pre-payable at $25.00 for four lines (twenty words), plus $2.25 per line (or part thereof), with a minimum charge of $25.00. Cheques are to be made out to: WIA Hamads.
- Copy should be typed or in block letters, and be received by the deadlines shown on page 1 of each issue of *Amateur Radio*, at:

  Postal: 3 Tamar Court, Mentone VIC 3194
  Fax: (03) 9584 8928
  E-mail: vk3br@c031.aone.net.au

TRADE ADS

• **AMIDON FERROMAGNETIC CORES:** For all RF applications. Send business size SASE for data/price to RJ & US Imports, PO Box 431, Kiama NSW 2533 (no enquiries at office please ... 14 Boanyo Ave Kiama). Agencies at: Assoc TV Service, Hobart: Truscotts Electronic World, Melbourne and Mildura: Alpha Tango Products, Perth: Haven Electronics, Nowra: and WIA Equipment Supplies, Adelaide.

• **WEATHER FAX programs** for IBM XT/ATs *** "RADFAXZ" $35.00, is a high resolution short-wave weather fax, Morse and RTTY receiving program. Suitable for CGA, EGA, VGA and Hercules cards (state which). Needs SSB HF radio and RADFAX decoder. *** "SATFAX" $45.00, is a NOAA, Meteor and GMS weather satellite picture receiving program. Needs EGA or VGA & WEATHER FAX PC card, + 137 MHz Receiver. *** "MAXISAT' $75.00 is similar to SATFAX but needs 2 MB of expanded memory (EMS 3.6 or 4.0) and 1024 x 768 SVGA card. All programs are on 5.25" or 3.5" disks (state which) plus documentation, add $3.00 postage. ONLY from M Delahuntly, 42 Villiers St, New Farm QLD 4005. Ph 07 358 2785.

• **HAM LOG v.3.1** - Acclaimed internationally as the best IBM logging program. Review samples....AR: "Recommend it to anyone": The Canadian Amateur: "Beyond this reviewer's ability to do it justice. I cannot find anything to improve on. A breakthrough of computer technology". ARA: "Brilliant". Simple to use with full help, the professional HAM LOG is immensely popular (now in its 5th year), with many useful, superb features. Just $59 (+ $5 P & P), with a 90 page manual. Special 5 hour Internet offer. Demos, brochures available. Robin Gandevia VK2VN, 02 369 2008 BH, fax 02 369 3069. Internet address rhg@ozemail.com.au.

FOR SALE NSW

• **Portable generator parts**: Briggs & Stratton motor (new), alternator, and regulator, assemble yourself, $200 ONO. Noel VK2YXM, QTHR, 02 9871 3079.

• **Kenwood TS-430S** HF txcvr, FM board, AM filter, books, box, EC, s/n 3052300, $800. **Yaesu FC-107** ATU, all HF bands, book, EC, s/n ON050476, $150. **KDK FM 2106A** 2 M FM txcvr, book, mobile bracket, EC, s/n 5582, $200. Geoff VK2BGP, 02 6743 6519.

• Change of life!! I have decided to sell off a lot of my pre-loved equipment, including **Philips 828s** for 6 and 2 M. Most are already converted to operate on our bands and I have some xtals. Some are capable of operating on 4800 and 1200 baud. There are also some **Tiny 2s** with similar capabilities. There are a number of **commercial synthesised rigs programmed for 2 M and 70 cm**, and an **Icom 741** all mode 70 cm transceiver, ideal for satellites, recently factory overhauled. Some CB rigs too. All POA. David VK2BDT, QTHR, 02 4821 5036.

• **Kenwood TS-440** HF txcvr, mobile bracket, book, factory checked, warranty, $1300. **Kenwood HC-10** world clock, $100. **AEA PK-232 MBX**, $400. **Kenpro KR-800S** heavy antenna rotator, some cable, shack compass control, $150. Peter VK2FFA, 02 4324 4160.

• **Kenwood TS-430S** txcvr with both manuals, DC power lead, recently serviced by Kenwood, $800. John VK2FUR, 02 4625 1812.

• **Drake TR7A** HF txcvr, s/n 11680, including WARC band option, **PS7 PSU** (s/n 10497), hand-held mic, $1150, negotiable. **Drake R7A** HF rcvr, s/n 3370, extra IF filters (4 and 6 kHz), cable kit (interfaces with TR7A), extension speaker (slightly damaged), $450 negotiable. Manuals for both units, all in good condn, sell separately or together. Pat VK2ABE, 02 6768 1470 (BH).

• **Kenwood TS-450SAT** with Digital Signal Processor DSP-100 and matching PS-53 power supply, all VGC with manuals and original packing, $1990 ONO. **Kenwood PS-30** 13.8 V 20 amp PSU, $250 ONO. **Kenwood AT-230** antenna tuner, $230.00. **Linear Amp**, pair 4-400 tubes, with heavy duty external PSU, homebrew, $750.00 or reasonable offer. **Icom IC-AT500** auto antenna tuner, $300. **Pentium 90** computer with 2 x 500 Meg HDs, 8x CD ROM, 3.5 in floppy, SVGA monitor, sound card, tower case, Windows 95 CD and some other software including drivers, system works well and is reasonably quick, upgrading to a laptop, offers considered. **NEC Powermate 1** 286 computer with IBM VGA monitor, hard drive, 5¼ and 3.5 in drives, great for packet, $65. **386 computer** with 5¼, 3.5 in floppies, hard drive, tower case, keyboard but no monitor but has SVGA card, $60. **Amstrad LQ3500** printer, works well and comes with a small supply of continuous paper, $150. **Yaesu SP-102** speaker, high and low filtering, $50. **Yaesu FC-707** ATU, $150. David VK2NH, PO Box 82, Springwood NSW 2777, 02 4754 4600, 0417 293 414.

FOR SALE VIC

• **Antenna mast**, two section, 50 ft, one man operation for tilt over and wind up or down, hinged at bottom, any trial, $450. H V Lonsdale VK3DND, QTHR, 03 5153 0717.

• Two Kenwood txcvrs, s/n 12245 and TS-810719, crystal controlled c/w xtals; **Kenwood TM-241A** 2 M rig c/w mast and coax; **MFJ-1700** Tx tuning switch; **MFJ-949D** ATU; **Palec valve tester** and valves, some in original boxes. Station closing down, no reasonable offer refused. Noel VK3DPB, QTHR, 03 9306 9231.

• **Yaesu FT-101ZD Mk2**, s/n 0230543, CW filter, YD-148 mic, workshop manual, spare new 6146s and 12BY7, EC, $550. **Yaesu FC-107** ATU, s/n 060280, EC, $200. **Kenwood R2000** receiver, EC, $450. **Trio 9R59DS** receiver, $70. **W Wolf Antennas**: Duo 10-15 m, GC, $120; Tri-band beam HB35C, 5 el, $400. **Ferguson MLT550** line tamer, rating 550 VA, GC, $220. Ken VK3EKB, QTHR, 03 9890 6818.

• **Ten-Tec 580 Delta** HF txcvr, complete with PSU and Model 228 ATU, including manuals, $495. V G Taylor VK3KVT, 03 9754 4860.

• **Kenwood TS-870**, 12 months old, s/n 80300020, with **PS-52** PSU, s/n 50700115; and **Daiwa CNW518 ATU**, s/n NJ10097, $3600. Jim VK3NR, 03 9367 6920.

• Deceased estate VK3WJ: **Tono 9000E** communication terminal, s/n 901461; **Tono CRT1200G** monitor; **Leader LBO 310** Ham oscilloscope, s/n 910040, $450. **VK Powermaster PSU**, 13.8 V 14/25 A, $150. **Explorer 2** 70 cm txcvr, $40. **ATN 10 el 2 m beam**, coax, $30. **ATN 16 el 70 cm beam**, coax, $50. **Debeglass guy rope**, $1 per metre. **M9456 DC variable PSU**, $20. Gordon VK3GB, QTHR, 03 9789 7710.

• **Philips FM92**, 99 channel 2 m 25 W txcvr; **Plessey MTR8000**, 36 channel 70 cm 30 W txcvr. Both EPROM pre-programmed for most popular simple/repeater channels. $175 each or $325 the pair. David VK3PDX, QTHR, 03 5174 7598 (AH), 03 5173 2510 (BH).

FOR SALE QLD

• **Kenwood TS-930S** HF txcvr, $1100. **TR-7400** 2 M base, 25 W, $220. **Hi-Mound HK-708** Morse key, $40. **CQ, QST, *Amateur Radio*** magazines, 1960s up. **Yaesu 12/24 hr quartz analogue clock**, $25. **Power transformers** 285 V O/P, Ferguson OP308/15 U/L 15 W. Peter VK4APD, 07 3397 3751 (AH).

• **Valves, new, boxed:** 6BQ5, 12BY7A, 5763, $10 each. QQVO7/50A, $20. QEO8/200, $45. 4-400C, $75. 810, $25. Used, tested 4-1000A, $85. 813, four for $50 (two unused). **High voltage capacitors:** 12 MFD 4 kVW, $75. 8 MFD, 4 kVW, $45. **Variable air capacitors, wide spaced:** 600 pF, $65. 120 pF, $50. **Coaxial relays:** "N" type SPDT to 10 GHz, $45. Ditto BNC input to 6 coax switched BNC outputs, $40. **Test equipment:** Marconi TF2015 signal generator, $325. Tektronix 7403N oscilloscope, 4 channel, 60 MHz, delay time base, $400. Professional VSWR/Power Meter (Sierra), 5-10-50-150-500 watts, to 512 MHz, $275. John VK4KK, QTHR, 07 3269 6647.

• **Icom IC-740** txcvr, excellent rxcvr with two VFOs, passband tuning, notch filter, RIT/XIT, memories on all bands, good transmission reports on all bands, excellent appearance and working order, s/n 04199, $700. Call for copy of specs sheet. John VK4SZ, QTHR, 07 4061 3286, *john@comnorth.com.au*

FOR SALE SA

• **Drake TR7** txcvr, PS7 PSU, **RV75** synthesised VFO, **SP75** speech-processor, **MS7** speaker with built-in audio filter, Astatic desk mic, $1875. **Codan Outback Radiophone 8528 B2141**, Automatic tuner 4203 B113, matching whip, all channels for Telastr/RFDS, amateur/CB option, $1950. Harro VK5HK, QTHR, 08 9323 9622, *ayk@terra.net.au*

• Deceased estate VK5LV: **Kenwood TS-940S** txcvr, s/n 7030258, $1800. **Yaesu FL2100** linear amplifier, s/n 4C150162, $650. 4 element 20 metre monoband Yagi with **10 metre high tower** and base mounted **rotator**, buyer to dismantle, $200. VK5QX, QTHR, 08 8250 1708.

FOR SALE WA

• **Icom IC-736** HF/6 M txcvr, s/n 01080, with books and box, as new, includes optional high stability xtal unit, $1900. D J Peterkin VK6DJP, QTHR, 08 9458 3449.

• **Icom IC-202** 2 m CW/SSB portable, mint condn, mic, handbook, s/n 3754, best offer or trade. Alan VK6PG, QTHR, 08 9275 3348.

• Deceased estate: **Yaesu FT-101E** HF txcvr, mic, handbook, $300. **Yaesu FC-700** ATU, $125. **Terlin Outbacker** antenna, spring base, $150. **RG58/62 coax cable**, various lengths up to 50 m, offers. Fred VK6FRE, 08 9276 4897.

FOR SALE TAS

• **Compakratt** C64, C128, RS232 interface and cartridge for PK232. **Kenwood TS-140S**, s/n 309003056. **Kenwood PS-52** PSU, s/n 30400417. **Kenwood MC80** mic. **MFJ 989C ATU**, s/n 029449. **MFJ 498 keyer** and keyboard. **Bencher Iambic key**. **Hustler 5BTV** vertical antenna including 30 m resonator and ground plane. **Fritzel Super FD4** long wire dipole, all band, 1 kW CW, 2 kW SSB, complete with insulators, pulleys and matching transformer. On behalf of Dennis VK7ABU. **Tokyo Hypower HC500A ATU**, mint condn, boxed, $200. Allen VK7AN, 03 6327 1171, 0417 354 410.

WANTED NSW

• **Kenwood TS-930S** Tx final board (x56-1430-00). David VK2AYD, 02 6585 2647.

• **811-A** (four), **8877**, **4CX1000A** (possibly with bases) valves. **GAP Voyager** antenna. **TU-2033 tuning unit** for Aerocom amplifier. **UEK-2000SAT down-converter**. **Drake PS-7 PSU**. Tom VK2OE, 02 4646 1024 (evenings).

WANTED VIC

• **Tektronix Model 130 L-C meter service manual or circuit**, all costs refunded. Drew VK3XU, QTHR, 03 9722 1620.

• **External VFO for Kenwood TS-520S**, in good working order, offers from interstate and country VIC welcome. Michael VK3MRG, 03 9747 9342 (AH), mobile 0419 581 226, e-mail *vk3mrg@nemesis.com.au*

• **Yaesu FR-101SD or FR-101S**, in good condn and working order. Damien VK3RX, 03 5427 3121.

• **7360 balanced modulator valve**. Stan VK3SE, QTHR, 03 5332 2340.

WANTED QLD

• **6BV7 valve**. **HV capacitors**, 4 kV minimum, **electrolytics** 2200 µF 400 V minimum. Peter VK4APD, 07 3397 3751 (AH).

• **Simpson Model 263 analogue multimeter**, can you assist with any technical details, all replies answered. Dick VK4GOR, QTHR, 07 3379 1600.

WANTED WA

• **Kenwood TS-711A** 2 M all mode txcvr. D J Peterkin VK6DJP, QTHR, 08 9458 3449.

MISCELLANEOUS

• **The WIA QSL Collection** (now Federal) requires **QSLs**. All types welcome, especially rare DX pictorial cards, special issue. Please contact the Hon Curator, Ken Matchett VK3TL, 4 Sunrise Hill Road, Montrose VIC 3765, tel 03 9728 5350.

• If you got your licence before 1973 you are invited to join the **Radio Amateur Old Timers Club**. A $2.50 joining fee plus $5.00 per year gets you two interesting Journals plus good fellowship. Arthur Evans VK3VQ or Milton Crompton VK3MN can supply application forms. Both are QTHR in any Call Book.

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■ **Comment**

Editor's Comment

continued from page 2

experimenter now 100 years ago, a milestone which has not been celebrated. It would be interesting to compare Selby and Dennis to see who was actually first.

After the reference to Selby in the *WIA Book* chronological table are further references of wireless telegraphy transmissions in Sydney, Western Australia, Tasmania and Adelaide.

Each of those recorded occasions may be opportunities to celebrate local centenaries of wireless next year, paying tribute to the pioneers and gaining recognition for the role amateur radio has had and continues to play.

Likewise the year 1999 will be the 75th anniversaries of the first two-way communication with the USA and Britain by Australian radio amateurs in 1924 – certainly milestones worth celebrating.

Jim Linton VK3PC
Guest Editor

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Stolen Equipment

The following equipment was stolen from the QTH of Gary Beech VK2KYP in St Marys on Thursday, 29 January 1998 at 11.00 am. If you have any information that may lead to the recovery of the equipment, please get in touch with Gary as soon as practicable.

Yaesu FT-736 VHF/UHF transceiver including 6 m and 23 cm, s/n 1C410598.
Icom IC-1271A, s/n 01055
Alinco DX-70T, HF and 6 m transceiver.
Tandy HTX200, 10 m transceiver
Icom IC-735, HF transceiver, s/n 13501
DSE PSU, 3 to 25 V, s/n 92521418.
Plus other domestic entertainment equipment - VCRs, camera, etc. **ar**

WIA Divisions

The WIA consists of seven autonomous State Divisions. Each member of the WIA is a member of a Division, usually in their residential State or Territory, and each Division looks after amateur radio affairs within its area.

Division	Address	Officers			Weekly News Broadcasts		1998 Fees
VK1	ACT Division GPO Box 600 Canberra ACT 2601	President Secretary Treasurer	Hugh Blemings John Woolner Les Davey	VK1YYZ VK1ET VK1LD	3.570 MHz LSB, 146.950 MHz FM each Sunday evening commencing at 8.00 pm local time. The broadcast text is available on packet, on Internet aus.radio.amateur.misc newsgroup, and on the VK1 Home Page http://www.vk1.wia.ampr.org	(F) (G) (S) (X)	$72.00 $58.00 $44.00
VK2	NSW Division 109 Wigram St Parramatta NSW (PO Box 1066 Parramatta 2124) Phone 02 9689 2417 Freecall 1800 817 644 Fax 02 9633 1525	President Secretary Treasurer (Office hours Web:http://marconi.mpce.mq.edu.au/wia e-mail address: vk2wi@ozemail.com.au Packet BBS: VK2WI on 144.850 MHz	Geoff McGrorey-Clark Eric Fossey Eric Van De Weyer Mon-Fri 11.00-14.00)	VK2EO VK2EFY VK2KUR	From VK2WI 1.845, 3.595, 7.146*, 10.125, 14.160, 24.950, 28.320, 29.120, 52.120, 52.525, 144.150, 147.000, 438.525, 1281.750 (* morning only) with relays to some of 18.120, 21.170, 584.750 ATV sound. Many country regions relay on 2 m or 70 cm repeaters. Sunday 1000 and 1930. Highlights included in VK2AWX Newcastle news, Monday 1930 on 3.593 plus 10 m, 2 m, 70 cm, 23 cm. The broadcast text is available on the Internet newsgroup *aus.radio.amateur.misc*, and on packet radio.	(F) (G) (S) (X)	$69.00 $56.00 $41.00
VK3	Victorian Division 40G Victory Boulevard Ashburton VIC 3147 Phone 03 9885 9261 Fax 03 9885 9298	President Secretary Treasurer (Office hours Tue & Thur 0830-1530) Web: http://www.tbsa.com.au/~wiavic/	Jim Linton Barry Wilton Rob Hailey	VK3PC VK3XV VK3NC	VK3BWI broadcasts on the 1st Sunday of the month, starts 10.30 am. Primary frequencies 3.615 LSB, 7.085 LSB, and FM(R)s VK3RML 146.700, VK3RMM 147.250, VK3RWG 147.225, and 70 cm FM(R)s VK3ROU 438.225, and VK3RMU 438.075. Major news under call VK3WI on Victorian packet BBS and WIA VIC Web Site.	(F) (G) (S) (X)	$75.00 $61.00 $47.00
VK4	Queensland Division GPO Box 638 Brisbane QLD 4001 Phone 07 5496 4714	President Secretary Treasurer e-mail address: wiaq@brisbane.dialix.com.au Web: http://www.wiaq.powerup.com.au	Rodger Bingham Peter Harding John Presotto	VK4HD VK4JPH VK4WX	1.825 MHz SSB, 3.605 MHz SSB, 7.118 MHz SSB, 14.342 MHz SSB, 28.400 MHz SSB, 29.220 MHz FM, 52.525 MHz FM, 146.700 MHz FM, 147.000 MHz FM, 438.525 MHz (Brisbane only), regional VHF/UHF repeaters at 0900 hrs Sunday. Repeated on 3.605 MHz SSB & 147.000 MHz FM, regional VHF/UHF repeaters at 1930 hrs EAST Monday. Broadcast news in text form on packet under WIAQ@VKNET.	(F) (G) (S) (X)	$74.00 $60.00 $46.00
VK5	South Australian Division 34 West Thebarton Rd Thebarton SA 5031 (GPO Box 1234 Adelaide SA 5001) Phone 08 8352 3428 Fax 08 8264 0463	President Secretary Treasurer Web: http://www.vk5wia.ampr.org/	Ian Hunt Graham Wiseman Joe Burford	VK5QX VK5EU VK5UJ	1827 kHz AM, 3.550 MHz LSB, 7.095 AM, 14.175 USB, 28.470 USB, 53.100 FM, 147.000 FM Adelaide, 146.700 FM Mid North, 146.800 FM Mildura, 146.825 FM Barossa Valley, 146.900 FM South East, 146.925 FM Central North, 147.825 FM Gawler, 438.425 FM Barossa Valley, 438.475 FM Adelaide North, ATV Ch 35 579.250 Adelaide. (NT) 3.555 USB, 7.065 USB, 10.125 USB, 146.700 FM, 0900 hrs Sunday. 3.585 MHz and 146.675 MHZ FM Adelaide, 1930 hrs Monday.	(F) (G) (S) (X)	$75.00 $61.00 $47.00
VK6	West Australian Division PO Box 10 West Perth WA 6872 Phone 09 351 8873	President Secretary Treasurer Web: http://www.faroc.com.au/~vk6wia e-mail address: vk6wia@faroc.com.au	Wally Howse Christine Bastin Bruce Hedland-Thomas	VK6KZ VK6ZLZ VK6OO	146.700 FM(R) Perth, at 0930 hrs Sunday, relayed on 1.825, 3.560, 7.075, 14.116, 14.175, 21.185, 29.680 FM, 50.150 and 438.525 MHz. Country relays 3.582, 147.350(R) Busselton and 146.900(R) Mt William (Bunbury). Broadcast repeated on 146.700 at 1900 hrs Sunday, relayed on 1.865, 3.563 and 438.525 MHz; country relays on 146.350 and 146.900 MHz.	(F) (G) (S) (X)	$62.00 $50.00 $34.00
VK7	Tasmanian Division PO Box 271 Riverside TAS 7250 Phone 03 6327 2096 Fax 03 6327 1738	President Secretary Treasurer	Ron Churcher Barry Hill Mike Jenner	VK7RN VK7BE VK7FB	146.700 MHz FM (VK7RHT) at 0930 hrs Sunday relayed on 147.000 (VK7RAA), 146.725 (VK7RNE), 146.625 (VK7RMD), 3.570, 7.090, 14.130, 52.100, 144.150 (Hobart) Repeated Tues 3.590 at 1930 hrs.	(F) (G) (S) (X)	$74.00 $60.00 $46.00
VK8	(Northern Territory is part of the VK5 Division and relays broadcasts from VK5 as shown received on 14 or 28 MHz).						

Note: All times are local. All frequencies MHz.

Membership Grades
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ADVERTISERS' INDEX

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YAESU FT-1000MP INCREDIBLE PERFORMANCE, AMAZING PRICE!

Now's your chance to pick up Yaesu's highest performance HF base transceiver, the new FT-1000MP at a very attractive price. You'll be amazed at its incredible performance but if you need convincing just read what the experts have to say.

On Operation:

"I would classify the transceiver as 'user friendly' compared to some other modern transceivers I have operated." - CQ

"...we found it to be a proficient performer." - QST

"...in terms of ergonomics my preference is marginally for the Yaesu... the second receiver is certainly better implemented..." Radio Comms (UK)

On Documentation:

"In general, Yaesu's manuals are the epitome of clear, concise and complete documentation and the FT-1000MP's 104-page Operating Manual is no exception." - QST

On the Receiver:

"Its receiver is a real beauty... it's very clean and the audio is very clear and punchy..." - Radio and Communications

"Measurement of second order intermodulation...showed an average result for the IC-775DSP but the FT-1000MP was some 10dB better than any other radio measured." - Radio Comms (UK)

"The receiver is quiet and good at its job and Yaesu's EDSP is icing on the cake." - QST

"Certainly, this receiver is designed to withstand the onslaught of very strong signals..." - CQ

On the Transmitter:

"CW operators will be impressed with the FT-1000MP keyer." - CQ

"The transmitter is good as well, with a lightning-fast automatic tuner built in as standard." - Radio and Communications

"The FT-1000MP has excellent spectral purity of the output signal." - CQ

Digital Signal Processing:

"The EDSP filter operates smoothly and effectively in all of its modes." - CQ

"Having the DSP built-in means it works as well as possible - and is clearly better than most after-market add-ons." - Radio & Communications

"The double-whammy of crystal and mechanical filters plus DSP in the FT-1000MP is a killer combination." - QST

Conclusions:

"...I am unable to report finding even a picky fault with the FT-1000MP." - CQ

"So does the inbuilt DSP say 'buy me'? In this humble scribe's opinion, you bet!" - Radio and Communications

"The FT-1000MP offers performance and flexibility in a quality radio." - QST

Interested in more information? Why not call us for a copy of Yaesu's 12-page colour booklet, 46-page Technical Overview, or for copies of various magazine reviews. We're sure you'll agree that the world of HF transceivers has taken a giant leap forward.

QST - ARRL QST (USA) magazine review April 1996

CQ (USA) magazine review April 1996

Radio Comms - Radio Communications (UK) magazine review January 1996

Radio and Communications - (AUST) magazine review July 1996

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